

Environmentalism in English Studies and Teachers’ Perceptions of Implementing the Curriculum in Finnish Upper Secondary Schools



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The aim of this master's thesis is two-fold: first, to see how the inclusion of environmentalism has changed in the Finnish national curricula for general upper secondary education over the last five decades, especially in English studies. Second, the role of teachers and their perceptions of the implementation of the curriculum and its contents are examined from the point of view of autonomy and Michael Lipsky's concept of street-level bureaucracy. What teachers are expected to do is identified by examining the curriculum, and by talking to teachers directly, their perceptions of their preparedness, abilities, and autonomy are established. Thus, environmentalism and its recognition in general upper secondary schools in Finland are examined.

This thesis begins with a review of the Finnish school system, definitions of sustainability and environmentalism, and consideration of teacher autonomy in Finland. Then, the first research question is answered with a review of the national curricula for Finnish general upper secondary education from 1985 to 2019. The review focuses on the development of environmentalism, especially in English studies, to see how the national curriculum has considered concepts such as sustainability in past decades. After the introduction of Lipsky's concept, the empirical part of this thesis is presented. Topics such as teachers' awareness of the most recent curriculum reform and environmentalism, teachers' perceptions of their preparedness to teach about environmentalism, and their need for more input were discussed in phenomenographic interviews with ten Finnish teachers of English.

This study found that the Finnish national curriculum has developed its environmentalism-related content in each curriculum reform. Through the introduction of transversal competencies and optional courses, the curriculum and English studies recognize the need to discuss topics such as global warming, sustainability, and environmentalism. Based on the interviews of this study, Finnish teachers are prepared to teach about environmentalism within English studies, as they recognize the importance of the topic. However, teachers mention the need for input, such as materials, further training, and collegial support.

Keywords: environmentalism, teachers, curriculum, upper secondary school, autonomy

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Tämän pro gradu -tutkielman tavoite on kaksiosainen. Tavoitteena on selvittää, miten lukion opetussuunnitelman ympäristöaiheiden, kuten kestävä kehitys ja ilmaston lämpenemisen, sisällyttäminen on kehittynyt viimeisten vuosikymmenten aikana erityisesti englannin kielen opinnoissa. Lisäksi tavoitteena on selvittää, miten lukion englannin opettajat kokevat opetussuunnitelman toteuttamisen autonomian ja Michael Lipskyn *katutason byrokraatit* -konseptin näkökulmasta. Tarkastelemalla opetussuunnitelmaa, voidaan selvittää opettajille asetetut odotukset opetuksen sisällöstä, kun taas keskustelu lukio-opettajien kanssa pyrkii selvittämään, miten he havaitsevat omat valmiutensa, kykynsä ja autonomiansa työssään. Täten voidaan selvittää miten ympäristöaiheet ja niiden tärkeys tunnistetaan suomalaisissa lukioissa.

Tämän tutkielman ensimmäinen osa perustuu suomalaisiin lukion opetussuunnitelmiin vuodesta 1985 vuoteen 2019. Viimeisten vuosikymmenten aikana tapahtunutta ympäristöaiheiden käsittelyn kehitystä tarkastellaan erityisesti englannin kielen opintojen osalta. Tutkielman toinen, empiirinen, osuus perustuu kymmenen suomalaisen englannin kielen opettajan kanssa pidettyihin fenomenografisiin haastatteluihin. Haastatteluissa käsiteltiin muun muassa opettajien tietämystä liittyen opetussuunnitelmauudistukseen ja ympäristöaiheisiin, opettajien käsityksiä omista valmiuksistaan opettaa ympäristöaiheista ja opettajien kokemaa tarvetta lisätuelle ympäristöaiheiden opetukseen.

Tutkielmassa selviää, että ympäristöaiheiden sisällytys englannin opiskeluun on kehittynyt jokaisen opetussuunnitelmauudistuksen myötä. Ympäristöaiheet on koettu tarpeellisiksi sisällyttää muun muassa laaja-alaisen osaamisen alueisiin ja englannin kursseihin. Haastattelujen perusteella opettajat kokevat itsensä valmiiksi opettamaan ympäristöaiheista. Opettajat kuitenkin mainitsivat tarpeen tuelle esimerkiksi lisämateriaalien, lisäkoulutuksen tai kollegiaalisen tuen muodoissa. Tutkimukseen osallistuneet opettajat kokevat ympäristöaiheiden opetukseen sisällyttämisen tärkeäksi.

Avainsanat: ympäristö, opettajat, opetussuunnitelma, lukio, autonomia

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1 Introduction

Drastic changes in the global average temperature have been deemed a global challenge in recent decades, making climate change and sustainability everyday topics of discussion (Virtanen, 2011). Environmental challenges and topics affect all walks of life (Wong, 2016). Thus, the Finnish education system has considered environmental topics in the national curriculum, including English studies, important. However, Finnish teachers have considerable autonomy interpreting and implementing the curriculum and its contents (Kupiainen et al., 2009). In this study, the Finnish national general upper secondary school curriculum's inclusion of environment-related contents in English studies is reviewed. The aim of this study is two-fold: first, the aim is to see how the inclusion of environmentalism has changed in the curricula over the last five decades, especially in English studies. Second, the role of teachers and their perceptions of the implementation of the curriculum and its contents are examined from the point of view of autonomy and Michael Lipsky's concept of *street-level bureaucracy*. What teachers are expected to do can be identified by examining the curriculum, and by talking to teachers directly, their perceptions of their preparedness, abilities, and autonomy can be established. Thus, environmentalism and its recognition in general upper secondary schools around Finland can be examined.

The research questions are:

1. How has the consideration of environmentalism in English studies developed in the Finnish national curriculum for general upper secondary school?
2. How do teachers' autonomy and preparedness affect the implementation of curricular contents?
3. What kind of input do English teachers need to feel more prepared to teach about environmentalism in English studies?

In this study, the Finnish upper secondary school system and curriculum are briefly introduced before conceptualizing environmentalism, sustainability, and climate change. Then, the role of teachers in Finland is introduced through reflections on teacher training and autonomy within curriculum interpretation. The subsequent section – the curriculum study – will answer the first research question by providing an analysis of the Finnish national curriculum from 1985 to 2019. The developments of the Finnish general upper secondary curriculum are examined from

an environmentalist point of view. This section concludes with a discussion of teacher autonomy and the introduction of Michael Lipsky's concept of *street-level bureaucracy*.

After the conceptual framework, the methodology and data for the empirical part of this study will answer the second and third research questions. Phenomenography is the methodology of this study, as this method is used to study persons' different perceptions and understandings of certain phenomena (Larsson & Holmström, 2007; Sin, 2010). In this case, teachers' perceptions of teaching about environmentalism in English studies are examined. As a phenomenographic study, the data of this study consists of ten interviews with teachers around Finland (Larsson & Holmström, 2007). This method, within a small-scale qualitative study, does not allow for formal generalizations of the results. Although interviews enable participants to talk about their perceptions of the topic, as the interview questions are formed to enable open responses from participants, the perceptions of ten teachers cannot describe the perceptions of all English teachers in Finnish upper secondary schools. However, these interviews enable us to see how teachers perceive their preparedness and abilities regarding teaching environmentalism-related topics in English studies, although this topic is outside their area of expertise. These results are then discussed to see what kind of input teachers would like or need to feel more prepared to teach about environmentalism within English studies. Finally, the conclusion summarizes the main findings and identifies how this study might generate a more generalizable result.

Teacher autonomy within the interpretation of the Finnish national curriculum has been studied by many (e.g., Kupiainen et al., 2009; Tirri, 2014; Luukka, 2017), but teachers' views on autonomy regarding the teaching of topics outside one's area of expertise has rarely been studied. Providing students with adequate knowledge and skills related to environmentalism seems vital, as climate change significantly affects all students' lives. Thus, teachers' confidence, preparedness, and skills to teach about environmentalism should be recognized to identify the type of input teachers need to be more prepared. By providing Finnish teachers with good tools and support, one may positively impact students' quality and extent of education in Finnish general upper secondary schools.

2 Contextual Framework

This chapter will discuss the context of this thesis to illustrate the different perspectives presented in this study. First, the development of Finnish general upper secondary schools and the national curriculum are reviewed to familiarize the reader with the context of this study. Further, climate change, environmentalism, and related terminology are conceptualized to clarify the theme of this discussion. As climate change is considered one of the defining features of modern societies (Letcher, 2015), its causes and consequences affect societies worldwide. Solutions to environmental challenges vary from economic to educational policies and laws, which is why the clarification of related terminology is necessary (Virtanen, 2011). Finally, after clarification of the framework of this study, the role of teachers in the Finnish school system and within the implementation of curricula's sustainability objectives, are examined. This framework is necessary to note to realize this study's research questions and aims, and to clarify key concepts that may be unfamiliar to the reader. As one of the aims of this thesis is to examine Finnish teachers and their autonomy, the Finnish school system is briefly explained to note the context of this study.

2.1 The Finnish School System and Curriculum

Ever since Finland has succeeded in *The Programme for International Student Assessment* (PISA), the Finnish national school system has been deemed the best in the world (Ustun & Eryilmaz, 2018; Schatz et al., 2017). According to Schatz et al. (2017), Finland's high PISA results in literacy and mathematics lead to a wide variety of publications, where Finland was cited as 'the best country for education' or 'a model of excellence.' This led to Finland capitalizing on its education, as Finnish education became a brand (Schatz et al., 2017). However, the Finnish education system has not always been above-average (Ustun & Eryilmaz, 2018). Kupiainen et al. (2009) discuss Finland's transformation from an agrarian society towards industrialization in the 1950s and 60s. As the economy was expanding, the need for quality education was recognized by adopting a comprehensive education system (Kupiainen et al., 2009). Transforming the Finnish school system into a comprehensive system developed gradually. The new school system aimed to enforce equal opportunities for students from various socioeconomic backgrounds. This, in turn, required changes in the legislature and practiced curriculum (Kortekangas et al., 2019).

Nationwide, compulsory education was limited to a nine-year basic education, as the *Basic School Law* was accepted and implemented in the 1970s (Kupiainen et al., 2009). However, this development only affected the basic education system, which required students to stay in school until they finished 9th grade or became 16 years old. Thus, the transformation of general upper secondary school and its developments remained separate from those of the basic education system (Ustun & Eryilmaz, 2018). Lappalainen et al. (2019) argue that the reimagination of the basic school system forced legislators to develop upper secondary education. The general upper secondary education required structural changes to respond to the changes made in compulsory education. However, a unified system modeled after Sweden's example failed, as the political climate of Finland at the time did not agree with the restructure of upper secondary education towards comprehensive education. Thus, in the end, Finland preserved a dual model, where upper secondary education was separate from vocational school (Lappalainen et al., 2019). As vocational schools prepare students for direct employment, whereas upper secondary education is designed to give students an academic orientation, the inequalities between the systems have been under scrutiny (Kupiainen et al., 2009). Lappalainen et al. (2019) argue that general upper secondary students are widely perceived as future agents, whereas vocational school students are expected to become employees or entrepreneurs. Changes of this nature may derive from the development of curricula (Lappalainen et al., 2019).

Finnish general upper secondary school could be referred to as high school, as its duration is three years and students are 16-19 years old. In contrast to comprehensive school, upper secondary school is not mandatory. However, in 2009, over 90 percent of the age cohort attended either general upper secondary school or vocational upper secondary school, whereas, in 2018, this percentage was 88 (Kupiainen et al., 2009; Hyvinvointitilastot, n.d.). However, the distribution between general upper secondary and vocational upper secondary schools has changed over time, as the vocational upper secondary school has become more popular. In 2017, 25 percent of 16-18-year-old students studied in vocational school, whereas 63 percent were in general upper secondary school (Hyvinvointitilastot, n.d.). High school has remained popular, as many deem it necessary for further qualifications, that is, universities or universities for applied sciences. In 2018, for instance, 103,440 students studied in high school (Vipunen, n.d.). Thus, the quality of education offered in Finnish general upper secondary schools is important, as the majority of the secondary school age cohort attends high school.

In the 1985 Basic School Curriculum change, the control over curriculum design was directed towards municipalities as the curriculum was reimagined and put into effect

(Kortekangas et al., 2019; Kupiainen et al., 2009). Municipalities now had more influence on the contents of curricula and had the responsibility to develop teaching contents in alignment with the aims of the national curriculum (Kortekangas et al., 2019). Along with shifts in the political system of Finland, the curriculum emphasized the need for equity in education and the importance of developing basic skills and knowledge. The Finnish education system emphasized a wide variety of knowledge, as students' personality, creativity, and skills were developed through professionalism (Kupiainen et al., 2009). These values were perceived in basic education, whereas the aims and objectives of the upper secondary school curricula have had different projections.

National core curriculum work has developed since the 1970s as the first national curriculum was detail-oriented (Kupiainen et al., 2009). However, in the 1985 and 1994 reforms, municipalities and teachers were given more autonomy in creating their curriculum, although the national curriculum offered the basic framework to follow. One of the core features of the national curriculum is the introduction of cross-curricular themes. This requires the teachers to consider some of the school subjects in connection to each other, for instance, through personal growth, internationalism, responsibility for the environment, or technology. These themes can be realized through certain subjects or general themes of the school environment (Kupiainen et al., 2009).

In addition to cross-curricular themes, the main objectives of general upper secondary school are named by the *Ministry of Education and Culture* (OPH) in Finland. According to these objectives, upon graduation from general upper secondary school, students should become well-rounded and educated citizens, with the knowledge and set of skills that are expected of them in future studies or working life, in addition to advancing their personal development (Ministry of Education and Culture [OPH], n.d.-b). Furthermore, according to the *National Curriculum 2019*, general upper secondary education should guide individuals to be critically thinking and responsibly acting citizens in society by supporting the development of a sense of global citizenship (Opetushallitus [LOPS], 2019).

Similar to comprehensive basic education, grades 1–9, a national core curriculum defines the core contents of upper secondary education (Ustun & Eryilmaz, 2018). The national core curriculum is a framework for municipalities' curricula, which are in effect for four years (Ministry of Education and Culture [OPH], n.d.-a). The current curriculum will be in effect starting in August 2021. The goal of the reform is to develop general upper secondary education so that it supports students' well-being and provides a comprehensive set of skills and knowledge for the students to succeed in future studies and working life. The new reform also

supports the *Ministry of Education and Culture*'s aim, whereby 50 percent of all 25-34 years old Finnish people should have an academic degree. Currently, 41 percent of Finnish 25–34-year-olds are academically educated (OPH, n.d.-c.; LOPS, 2019). Additionally, general upper secondary education is modernized, as digitalization and university acceptance intake are transformed (OPH, n.d.-c).

The Ministry of Education and Culture (OPH) also lists developing general upper secondary schools' education, supporting cross-curricular themes, and responding to current challenges in society as its aims for the reform of the national curriculum (The Ministry of Education and Culture [OPH], n.d.-c). The new curriculum emphasizes transversal competencies (*laaja-alainen osaaminen*), which form the aims and objectives across all subjects. The transversal competencies are: 1) well-being competencies, 2) interaction competencies, 3) interdisciplinary and creative competencies, 4) social and citizenship competencies, 5) ethical and environmental competencies, and 6) global and cultural competencies. These competencies are designed to support students in developing skills and knowledge to navigate a complex world (LOPS, 2019, pp. 9-10). Regarding ethical and environmental competencies, students should realize the importance of biodiversity, ethical and value-based decision-making, as well as sustainable consumerism (LOPS, 2019). The need to include these topics in the national curriculum is illustrated in the next chapter, as a general review of environmental challenges is presented. As this thesis aims to inspect teachers' views on the inclusion of environmental topics in English studies, the topic of environmentalism is conceptualized to provide the reader with a concise image of the framework of this study.

2.2 Climate Change, Sustainability, and Environmentalism

Finnish national curricula, since 1985, mention sustainability or sustainable development in its transversal competencies or as contents of specific courses offered to students (Kouluhallitus [LOPS], 1985; Opetushallitus [LOPS], 1994; Opetushallitus [LOPS], 2003; Opetushallitus [LOPS], 2015; LOPS, 2019). Sustainable development has become necessary as an immense environmental disaster is the evident aftermath of worldwide economic growth, states Sachs (2015). As the issue is multifaceted, the solution to the said challenge requires various perspectives (Sachs, 2015). According to Borg and Joutsenvirta (2015), sustainable development considers sustainable economic growth, social equity, and ecological sustainability, as these factors are interdependent. Society should see the interconnection between the social, environmental, and economic factors for sustainable development to

become realized (Borg & Joutsenvirta, 2015; Sachs, 2015). At its core, sustainability should reflect on scientific information, as it enables decision-making based on facts (Borg & Joutsenvirta, 2015).

However, before discussion of educational policies' role in climate discourse, climate change, environmentalism, related terminology, and topics should be identified comprehensively. Riedy (2016) defines climate change as long-term changes in the average climate or climate variety. Wong (2016) defines global warming as "the gradual increase in temperature of the Earth's atmosphere" (p. 61). Often, this effect is connected to greenhouse gases, which are heat-trapping gases (Wong, 2016). These gases include, for instance, water vapor, carbon dioxide, methane, and dinitrogen oxide, which absorb radiative energy from the ground, preventing it from entering space (Wong, 2016). However, naturally occurring climate change is not a new phenomenon and Virtanen (2011) states that without this phenomenon, the Earth's global temperature average would be thirty degrees colder. Thus, the problem lies in the number of gases trapped in the atmosphere. Although an estimated half of carbon dioxide is contained in carbon sinks, mostly vegetation and the ocean, carbon sinks' ability to store carbon dioxide has lowered in recent decades, causing more of the gas to end up in the atmosphere. This, in turn, causes a rise in the global average temperature (Virtanen, 2011).

Changes in the environment have always existed, both short-term and long-term, according to Wong (2016). Naturally fluctuating temperatures and global changes in precipitation and drought are part of natural climate variability (Wong, 2016). Additionally, changes in the biosphere, atmosphere, and hydrosphere, for instance, have been occurring for millions of years, as the fluctuation of the climate has been studied for centuries (Letcher, 2015). However, in recent years, these changes and fluctuations have been drastic (Wong, 2016). In 2012, at the *United Nations' Conference on Sustainable Development*, it was determined that a new geological epoch has begun – *the Anthropocene*. The name derives from humans' undeniable role in the changing climate (Suomen YK-liitto, n.d.). Other renowned organizations, such as the *Intergovernmental Panel on Climate Change* (IPCC), have also recognized the warming trend seen worldwide (Wong, 2016). The global land-ocean temperature index has been tracked since 1980 when the annual mean was -0.16 °C. In 2020, this annual mean was 1.02 °C (National Aeronautics and Space Administration [NASA], n.d.).

Climate change – the environment and humans' impact on environmental changes – has been discussed by various scientists since the 17th century. Previously, the extent of the environmentalism-related discourse was mainly limited to the natural environment: the natural ecosystem, that is, oceans, rainforests, deserts, and the climate. Since the 1960s and 1970s,

however, environmentalism had considered other factors such as social inequalities. People started lobbying for safer and cleaner living conditions while preserving the nature and securing economic growth and resources for future generations. Thus, with developing understandings of the phenomenon, environmentalism has remained a heavily contested term. Often the 'ism' connotes pro-environment movements, where humans' actions' impact on the natural environment is criticized. Further, environmentalists, in this sense, are considered persons who advocate for sustainable development and acknowledge the environmental consequences of human actions, such as deforestation, biodiversity loss, or climate change (Dauvergne, 2009). This definition of environmentalism and environmentalists is applied in this thesis. Pro-environment actions or contents, such as sustainability and climate consciousness, are described as environmentalism.

Climate change presents a modern, global challenge as it affects all areas of life, such as food production, heatwaves, and access to clean water (Riedy, 2016; Virtanen, 2011). Further, the consequences of climate change are visible in the biodiversity of plants and animals, the global economy, and societal development. Kohl (2011) refers to the challenge of climate change as the lack of a visible opponent, as global warming cannot be considered as a mere environmental issue. Instead, its economic and societal impacts should be studied in detail, as current knowledge of climate change's far-reaching effects remains minimal (Kohl, 2011). Thus, global warming and consequent climate change are issues that need the attention of policymakers, leaders, and decision-makers, as actions slowing down the development of the global rise in temperature are required to enable life on Earth in the future (Virtanen & Rohweder, 2011).

However, finding global solutions to the all-encompassing challenge that climate change presents is not simple. Riedy (2016) states that one of the challenges is disagreement within the realization of climate change among politicians and political parties, despite the consensus based on science. Countries that benefit financially from the extensive use of fossil fuels, for instance, may be reluctant to change environmentally conflicting laws and measures, as this may cause economic disadvantages. Additionally, the discourse surrounding climate change from the perspective of countries and policymakers is often connected to shifting blame and responsibility for climate change (Riedy, 2016). Virtanen (2011) argues that many of the effects of climate, such as drought or floods, affect the livelihood of many. These changes, however, do not spread equally across the world, as many developing countries suffer from the actions of developed countries (Virtanen, 2011).

Although most of global warming's substantial effects are visible in developing countries, some of the effects of climate change appear in the northern hemisphere as well. According to Virtanen (2011), the rise in average temperature is twice as noticeable in northern areas, such as Finland, as it is elsewhere (Virtanen, 2011; Suomen Luonnonsuojeluliitto [SLL], n.d.). The average temperature in Finland is predicted to rise 0,4+-0,1 Celsius degrees in a decade, as winters become shorter and warmer. This, in turn, influences other seasons, which are affected through rainfall and sub-zero temperatures, which further alters the biodiversity of Finland. (SLL, n.d.) As climate change advances at a considerable speed, many species cannot adapt to changes in temperature and living conditions fast enough, argue Tolvanen and Luukkonen (2011). With the current speed of progression, and if the global average temperature rises more than two degrees, the prediction is that Finland will lose over two-thirds of its natural species (Tolvanen & Luukkonen, 2011). Thus, Finland is not excused from the discourse on climate change. The inclusion of environmental topics in the national curriculum could be argued for, as the effects of global warming impact Finnish nature. Further, students' awareness of a global crisis seems inevitable, as the environmental challenge of climate change cannot be canceled or slowed down quickly. That means that future generations will have to be aware of climate change in Finland (Virtanen, 2011), which further proves the need to include environment-related topics in the national curriculum.

According to IPCC's 2013 report, the emissions of greenhouse gases will continue to further the warming of this planet and subsequently affect the climate system altogether. Thus, the limiting of climate change will require considerable reductions in greenhouse gas emissions (Intergovernmental Panel on Climate Change [IPCC], 2013). This, in turn, requires action from all, as Wong states there to be destructive consequences to the inactivity of today, as people need to be more conscious of how their behavior affects the future (Wong, 2016). According to Virtanen and Rohweder (2011), considering the effects of climate change is essential, as many of the consequences of today's actions will affect societies in decades. Abate argues that the youth have a dominant role in the solution-oriented discourse regarding climate change, as future societies and generations are often present in the discussions (Abate, 2019). Many countries have recognized the immediacy of climate change from the perspective of future societies by creating aims for carbon-neutrality, such as Finland's aim to be carbon-neutral by 2035 (Isomäki, 2019; Ympäristöministeriö, n.d.).

Organizations have created various programs to support the realization of sustainability and carbon-neutrality goals. As the aims for carbon neutrality are often created over a span of years, if not decades, intergenerational factors, such as the development of education, need to

be considered. *United Nations' 2030 Agenda for Sustainable Development* aims to advance sustainability across different areas of life. These seventeen goals include, for instance, energy, infrastructure, and economy-based sustainability goals. Goal four is related to education, and it aims to secure the needs of future generations' needs. One of the aims includes ensuring that all learners have the knowledge and skills to promote sustainability by 2030 (United Nations, n.d.-a.). *The 2030 Agenda*, along with environmentalism and climate change, has been recognized in the general upper secondary school curriculum in Finland. According to the curriculum set to be enforced in August of 2021, general upper secondary education should promote sustainable agency and a sense of global citizenship by realizing *United Nations' 2030 Agenda* (LOPS, 2019).

The Finnish general upper secondary curriculum also mentions environmentalism as a transversal competency (LOPS, 2019). Students should consider their actions through sustainability, as the goals include learning about the ecological way of living considering the economic, social, and cultural aspects of sustainability. Further, upper secondary students should have the ability to consider their actions and related consequences concerning the natural carrying capacity of the environment. The curriculum recognizes the importance of everyday actions, and students' impact on controlling climate change and promoting the securing of biodiversity are considered (LOPS, 2019). As an objective of the national curriculum is to find solutions to challenges faced by society, one may consider the role of teachers in this multifaceted challenge. Teachers have an integral role in Finnish society as education is a valued field, and teachers are seen as professionals. Thus, as learning about the environment and climate change often happens at school, teachers' role in implementing the curriculum's competencies, objectives, and contents is integral. However, Finnish teachers have various liberties in the interpretation of the national curriculum. Thus, teachers' role in implementing the curriculum's contents and integration of environmental topics shall be discussed in relation to teacher autonomy and responsibility.

2.3 Teacher Education and Autonomy in Finland

Teacher education in Finland is credited as one of the key influencers of the education system's success (Ustun & Eryilmaz, 2018; Schatz et al., 2017; Uusiautti & Määttä, 2013). High-quality teacher education is partly the aftermath of the Finnish government's standard of 'equal opportunities and high-quality education for all,' argues Tirri (2014). Although this principle is designed for basic education, providing high-quality education has been adopted in teacher

education. Finnish teacher education is studied in universities around Finland, as all comprehensive and upper secondary school teachers are required to have a master's degree (Uusiantti & Määttä, 2013). Through continuous evaluations and structural developments, Finnish teacher training education has been reimagined and reformed. Constant changes in society have driven the education system to respond to modern challenges (Uusiantti & Määttä, 2013).

Finnish teacher education has, since the 1980s, consisted of quality education, which further enables teachers to have professional freedom and autonomy within their pedagogy, state Kupiainen et al. (2009). This freedom considers the planning and implementation of the curriculum, as universities have autonomy over their teacher education curriculum, and teachers in Finnish basic education have autonomy in interpreting the national curriculum (Kupiainen et al., 2009; Tirri, 2014). According to Tirri (2014), this freedom and autonomy derive from master's level Finnish teacher students using research-based methods to teach and implement the available curricula. Although Finnish teachers have autonomy over the interpretation and implementation of the municipal curricula, the national curriculum provides the general values and aims for all teachers to enforce in their teaching of various subjects (Tirri, 2014; Luukka, 2017; LOPS; 1985).

According to the national curriculum for general upper secondary school (LOPS, 1985), teachers must follow the contents of the curriculum and aim to fulfill the aims and objectives listed in the curriculum in collaboration with students and respective homes. This, in turn, requires teachers to familiarize themselves with the contents of the curriculum. However, teachers can influence their municipalities' curricula, as the 1985 curriculum states that teachers may choose how the various topics in each subject are covered (LOPS, 1985). Teachers' pedagogical autonomy enables them to consider the learning objectives listed in the curricula with appropriate methods, as they can organize their teaching to suit the assigned class optimally (Luukka, 2017). Further, the development of teachers' autonomy has allowed teachers to focus on curriculum-based reflections and decisions rather than follow strict rules, argue Erss et al. (2016).

The integration of subjects has been emphasized in the *2019 National Curriculum* for general upper secondary school (LOPS, 2019; Haapaniemi et al., 2020). Although integrating subjects has been present in curricula since 1985, the nature of the objective has changed. Previously, the goal of integration was based on teachers' liberties and willingness to combine subjects. However, in the 2019 curriculum, integration has become a requirement to ensure a wide variety of knowledge and abilities to connect different topics and their shared properties

(LOPS, 2019; Haapaniemi et al., 2020). However, concrete examples concerning integration remain minimal, which is deemed challenging by some teachers, according to Haapaniemi et al. (2020).

In Erss et al.'s (2016) study, teachers found that the curriculum offered limitations on the contents of courses, whereas teachers in Haapaniemi et al.'s (2020) study highlighted the room for autonomy. Haapaniemi et al. discuss the challenges of teacher autonomy in Finland in their study. These challenges may arise within the planning of education, as teachers may feel that they have too little time to plan the contents and assessment of various modules. Further, although teachers' experience in integration was primarily positive, a lack of time planning integrated lessons and classes was noted. The integration organization was also challenging to some teachers, as collaboration with other autonomous teachers was demanding for some. However, the Haapaniemi et al. study found that cooperation in integrative teaching is beneficial, as sharing the weight of planning modules and assessment plans are divided evenly (Haapaniemi et al., 2020). Jolly et al. (2020) agree that social support in the workplace can function as an essential resource. In the context of teachers, support from other teachers offering their expertise or social support may encourage teachers in their profession. Finally, Finnish teachers seem to have guidance on the contents of their teaching but have more liberties in choosing the methods and materials. Thus, collaborating with other teachers to find appropriate methods and materials may benefit students' learning.

Teacher autonomy in Finnish schools results in various teaching methods and materials between different schools, state Haapaniemi et al. (2020). According to Erss (2015), many Finnish teachers enjoy their freedom, as they have many liberties in choosing their materials. In a study conducted by Erss et al. (2016), Finnish teachers thought that the room for interpretation in the national curriculum, especially in foreign language teaching, enabled teachers to have more control over the chosen materials (Erss et al., 2016). Most Finnish teachers of English have various tools and materials available. The materials often include textbooks and materials provided by the textbooks' publishers, for instance, online worksheets, tests, games, or learning exercises. Additionally, teachers have access to free online resources (e.g., materials in Facebook groups) that they may share with coworkers or other English teachers, in addition to widely known resources, such as TED talks.

According to Erss et al. (2016), the societal standing of teachers as appreciated professionals influence teachers' perceptions of their professional satisfaction and views of the national curriculum. Further, decision-makers place trust in teachers, which has improved general morality among teachers (Erss et al., 2016). However, the freedom and autonomy of

Finnish teachers should be noted, as although the curriculum offers a general framework for topics that should be included in education, the extent and nature of teaching may vary depending on the teacher's personal beliefs and values (Taylor, 2007). In the context of this study, teachers' autonomy within the interpretation of the curriculum regarding the teaching of environment-related topics in English studies may vary depending on the teacher and their personal beliefs and attitudes towards the topic. However, the Finnish national curriculum contents have changed since the 1985 *Basic School Law*, which has impacted the inclusion of environmentalism in the curriculum. Seeing how the curriculum has changed over the last forty years illustrates the development of the Finnish education system's notion of environmentalism. It also portrays how crucial international cooperation might have had an impact on these curricular changes. Further, as the topic of discussion is clarified, one may consider the implementation of the curriculum.

3 Conceptual Framework and Curriculum Study

In this chapter, the Finnish national curriculum's notions of environmentalism and sustainability are reviewed from the 1985 curriculum to the most recent curriculum reform from 2019 to answer the first research question of this study. National curricula for general upper secondary school from 1985, 1994, 2003, 2015, and 2019 are considered. The development of environment-related topics' inclusion, especially in English language studies, is reviewed in the curricula. After acknowledgment of curricular developments, teachers' role as autonomous figures is connected to Michael Lipsky's concept of *street-level bureaucracy*. Further, this concept's connection to education is discussed through reflections on teachers' attitudes, values, and confidence, which may affect their teaching. While the first section answers the first aim of this study, the review of teacher autonomy and Lipsky's concept gives a theoretical background for the empirical part of this study, which will be presented in the next two chapters.

3.1 Curriculum Development

In 1985, the *Basic School Curriculum* reform affected the development of the general upper secondary curriculum (Kortekangas et al., 2019; Kupiainen et al., 2009). The 1985 curriculum had a significant role in the development of the Finnish education system. The curriculum states some of the political changes that may be expected due to the reform, such as additional heterogeneity among students as those who have finished basic school can study in general upper secondary schools (LOPS, 1985). Additionally, the role of language learning was highlighted, as municipalities had more pressure to organize language teaching and support students in choosing an additional language. Moreover, the Finnish high school aimed to teach basic skills to the students and then guide them towards career opportunities through functional student counseling. The 1985 reform also enabled students to have more liberties in choosing the subjects they wish to study, take part in student councils, and thus influence the school culture and take part in the planning of courses and their structures (LOPS, 1985).

Understanding and producing intelligible English is listed as one of the main goals of learning English in the 1985 curriculum for upper secondary education (LOPS, 1985). In addition to knowing the basics of English grammar, students should familiarize themselves with countries and cultures where English is the native language. All courses should include the four parts of language learning listed by the curriculum: understanding speech, speaking, understanding text, and writing, with the latter being of utmost importance if the student is

going to higher education after high school. The general topics of English classes should deal with societal topics by supporting a sense of international understanding. Finnish municipalities are expected to include challenges and topics of the Finnish society in the curriculum (LOPS, 1985). However, these challenges and topics are not listed but left to the responsibility of the municipalities. Although the 1985 curriculum does not list transversal competencies, it requires teachers and students to cover topics related to environmentalism in two courses within English studies. These courses are 4. Humans and society (Ihminen ja yhteiskunta) and 7. Humans and nature (Ihminen ja luonto). Course four mentions geographical circumstances as one of the competencies, whereas course seven requires students to consider humans as part of nature, based on science. Students are encouraged to improve their vocabulary related to nature, and the perspective of the course should progress from local to international. Although the suggested topics in course seven do not mention climate change or sustainable development, topics such as natural resources and their limits, conservation of nature, and population issues are listed (LOPS, 1985).

The 1994 curriculum reform (LOPS, 1994) lists various specific aims and bases of action for teachers and students. These include the aim to enhance the significance of entrepreneurship and responsibility for one's actions, internationalization, and a shift in the foundational values of education. According to the 1994 curriculum, these foundational values are based on the supposition that changing societies need to consider various perspectives. Additionally, the curriculum mentions sustainable development as one of the core foundations of value-based discourse. This concept should recognize the relationship between humans and nature, in addition to acknowledging and preserving national cultural heritage. Moreover, the aspect of multiculturalism and its gradual growth need to be considered in connection to students' developing sense of identity. The 1994 curriculum states that schools should transmit values that support society's development and realize individuals' development opportunities (LOPS, 1994).

The improvement of the state of the environment and preservation of Earth's viability requires specific changes in the development of policies and education, according to the 1994 curriculum for general upper secondary education (LOPS, 1994). The curriculum states that all humans' basic needs must be met without endangerment of future generations' needs, thus underlining the need for sustainable development. Education is named an integral agent in the development towards sustainability, as education can create visions and abilities required for development in the cultural perception of sustainability. However, in the 1994 curriculum, the concept of sustainable development does not have an overarching role within English studies.

The curriculum lists various general themes to consider in English education, such as society, work, history, economic and environmental education, and nature. Environmental education and nature are not mentioned within connection to specific courses, although other general themes that have been mentioned previously were covered in courses. Nature and natural conservation are only mentioned within interdisciplinary courses (LOPS, 1994). In conclusion, the 1994 curriculum mentions environmentalism and related topics only as general themes to discuss in education, rather than as the main topic of specific courses or modules.

Specific changes between the 1985 and 1994 curriculums may result from the *Earth Summit* in Rio de Janeiro in 1992. This summit was organized to cooperate on significant issues that societies were facing, namely sustainability (United Nations, n.d.-b). *United Nations* member states discussed issues within production, energy sources, public transportation, and water use. Further, the summit committed states to reduce greenhouse gas emissions as global warming was recognized as a human-caused phenomenon (United Nations, n.d.-b). *Earth Summit* was a momentous step towards climate change policies and agreements, as after the summit, the *Kyoto Protocol* was formed in 1997 (United National Framework Convention on Climate Change [UNFCCC], n.d.-b). Essentially, the *Kyoto Protocol* enforced the objectives agreed upon in the *Earth Summit* by obliging the reduction of emissions worldwide. *The Earth Summit* and the *Kyoto Protocol* were historically significant political changes in climate change policies (UNFCCC, n.d.-b). As worldwide leaders recognized global warming and the need for sustainability, educational politics needed to respond to these expectations by making changes in the national curriculum. Thus, these summits and protocols could have had a notable effect on the changes in the Finnish national curricula in 1994 and 2003.

In the 2003 national curriculum, Finnish high school education values are rooted in Finnish sophistication history as part of the European cultural heritage (LOPS, 2003). Further, open democracy, international cooperation, and encouraging interaction between citizens are named as foundations of general upper secondary education. In terms of thematic entities, the 2003 curriculum lists significant societal challenges in education. These challenges are said to shape the framework of Finnish high school education, as active citizenship, wellness and security, sustainable development, cultural identity, technology, and communications are listed as general themes for upper secondary education. The common goal of sustainable development is considered necessary to secure the future of all generations, as the goal states to support students to live and act sustainably. The aims listed in this goal mention the following statements: students are aware of the basics of ecological, economic, social, and cultural dimensions of sustainable development, and understand the importance of these dimensions'

simultaneous implementation; students can measure and evaluate changes occurring in natural, cultural and social environments; students contemplate the basics of sustainable living, ecologically efficient production and society, as well as culture, which considers the well-being of nature intergenerationally. Additionally, the aims mention students' willingness to act sustainably in their daily lives and preparedness to work together locally, nationally, and internationally for a better future (LOPS, 2003).

The 2003 aims of the national curriculum for Finnish high school require students to consider sustainability from different perspectives – through humans' impact and humans' habit to change through cultural evolution. Students should consider globally occurring environmental threats and possible solutions and realize the importance of global cooperation and culture of action (LOPS, 2003). In addition to the general themes that should be implemented in high school education according to the 2003 curriculum, sustainability is mentioned concerning three Swedish courses, where sustainable development is one of the main themes and other foreign languages, which all students do not study. In foreign language learning, which includes the teaching and learning of English, climate change is not mentioned. However, one of the interdisciplinary courses, 7. Nature and sustainable development (*Luonto ja kestävä kehitys*) offers students tools and skills to understand and use environment-related English vocabulary (LOPS, 2003).

Additionally, ecological sustainability and production are mentioned concerning individual biology and geography courses (LOPS, 2003). Climate change is mentioned in the 2003 national core curriculum, but only concerning a specific geography course (LOPS, 2003). The goals related to sustainable development in the 2003 curriculum are significant, as the difference in the inclusion of environmentalism-related topics between the 1994 and 2003 curricula is evident. However, a new national core curriculum for general upper secondary education was published in 2015.

The 2015 national curriculum for general upper secondary education (LOPS, 2015) lists various similar transversal competencies as those mentioned in the 2003 curriculum (LOPS, 2003). For instance, identical to the 2003 curriculum, active citizenship, wellness, and security are mentioned as the main themes of the 2015 general upper secondary education curriculum. However, the 2003 curriculum's sustainable development aim as a common theme had changed into a sustainable way of living and global responsibility in the 2015 curriculum (LOPS, 2003; LOPS, 2015). This common goal can encourage students to live and act sustainably as agents of responsible action. Furthermore, this aim is similar to the 2003 curriculum's aim of sustainable development, as the manifoldness of sustainability is noted.

In contrast to the early 2000s curriculum, the 2015 curriculum mentions climate change, as students should be aware of the phenomenon and its effect on biodiversity, the environment, and humans' impact. Moreover, the role of globalization and its role on local and global sustainability is recognized, in addition to poverty and inequality related to climate change. In addition to other goals mentioned in the 2003 curriculum, the 2015 curriculum requires students to work intergenerationally to advance sustainable development as societies (LOPS, 2015).

Concerning English teaching and learning, the 2015 curriculum for general upper secondary education (LOPS, 2015) has a similar course found in 1994 and 2003 curricula; 7. Sustainable way of living (*Kestävä elämäntapa*). This course aims to include the ecological, economic, social, and cultural aspects of sustainability in relation to students' needs or interests. However, these English courses do not mention climate change although the 2015 curriculum lists climate change within its transversal competencies, in addition to specific courses and aims. Additionally, the 2015 curriculum recognizes the need to ensure that students are aware of their actions' impact on the environment. The importance of seeing the value of individuals' actions is highlighted. Thus, the curriculum suggests that general upper secondary schools would create sustainability programs where students could collaborate with organizations and other operatives (LOPS, 2015).

Between the 2015 and 2019 Finnish national curricula, the *Paris Agreement* had a notable impact on worldwide climate change politics and policies. The *Paris Agreement*, an international treaty by member states of the *United Nations*, was adopted in France in 2015 (United Nations Framework Convention on Climate Change [UNFCCC], n.d.-b). The agreement's main objective was to limit global warming to remain less than 2 degrees Celsius compared to pre-industrial global average temperatures. This requires all participating countries to decrease respective greenhouse gas emissions and aim to become 'climate neutral' as soon as possible (UNFCCC, n.d.-b). Although the *Paris Agreement* is not mentioned in the 2019 national curriculum by name, the *2030 Agenda* by the *United Nations* is acknowledged concerning the transversal competencies and the foundational values of the curriculum (LOPS, 2019). The curriculum reform requires students to recognize the immediacy of sustainable living, as students are encouraged to reflect their actions on a sense of global responsibility for the environment. Further, the importance of international cooperation and a sense of global citizenship are mentioned with regard to the *2030 Agenda* (LOPS, 2019).

Further, the 2019 national curriculum indicates environment consciousness and sustainability more than its four predecessors. In terms of transversal competencies and general themes, the curriculum encourages students to familiarize themselves with scientific research

to develop students' knowledge of climate change and environment-related topics. Students are also invited to reflect environmental topics to the society to recognize institutional policies in favor of sustainability. Overall, students' relationship with and towards the environment is inspected in the curriculum, as the 2019 curriculum has set ethics and environmental skills as one of its critical competencies (LOPS, 2019).

With regard to language studies, the 2019 curriculum recognizes environmentalism and sustainability within Finnish, Swedish, and English studies in addition to other subjects (LOPS, 2019). English language study objectives list ethics and environmental skills as general aims through the encouragement of understanding global issues, such as global warming, in more languages than one's native language. Especially global perspectives in environment-related topics are encouraged, as finding solutions to global issues through cooperation is presented. In terms of specific courses, only mandatory course 5. Sustainable future and science (*Kestävä tulevaisuus ja tiede*) and the elective course 7. Environment and sustainable living (*Ympäristö ja kestävä elämäntapa*) have the immediate objective of learning about the environment, sustainability, and global cooperation through international organizations and treaties. Other courses, such as 2. English as a global language (*Englanti globaalina kielenä*) may touch on sustainability or international cooperation through other topics. Thus, English studies specifically do not discuss the environment or sustainability as a central theme, other than in one voluntary course, although the environment is listed as one of the core themes for the whole curriculum (LOPS, 2019).

Transversal competencies in Finnish curricula have developed, as the 1985 curriculum (LOPS, 1985) briefly mentions the possibility of integrating subjects to create general themes in the teaching of students. For instance, connecting subjects over topics they have in common through connection to society, economics, nature, or culture is suggested (LOPS, 1985). On the other hand, in the *2019 National Curriculum* (LOPS, 2019), ethical and environmental competencies are crucial transversal competencies. These competencies require students to plan their behavior from the perspective of sustainability, meaning the student will learn the basics of ecological, social, cultural, and economic dimensions of sustainability. Furthermore, students should evaluate their actions and their effects on nature based on scientific knowledge and principles related to climate change and protecting biodiversity. These topics are discussed within the context of societal influence and structures that have positive, neutral, and negative impacts on the environment. Additionally, the 2019 curriculum states that students should have the basic knowledge regarding the *United Nations' 2030 Agenda* and their role in the

progression of climate change, and how their behavior could positively impact the environment (LOPS, 2019).

The 1994 National Curriculum for general upper secondary education mentions sustainable development as integral for the development of societies (LOPS, 1994). Additionally, the curriculum highlights the role of education in influencing students' knowledge and values related to the environment, making the importance of including these topics across subjects integral (LOPS, 1994). The Finnish 2003 curriculum, in turn, highlights the variety of perspectives that need to be considered in relation to environmental matters – students should recognize the role of culture and societal pressures in developing environmental matters (LOPS, 2003). Further, the 2015 and 2019 curricula emphasize transversal competencies and sustainability as a concept by realizing the social, ecological, and economic factors (LOPS, 2015; LOPS, 2019). This shows that environment-related topics have been covered in Finnish curricula since 1985. As the national curriculum's consideration of sustainable development, conservation of nature, and climate change have been noted, one may consider teachers' role in implementing these topics as well as individual teachers' preparedness to discuss topics outside their area of expertise. Autonomous teachers have a notable role in society as the enforcers of rules and curricular demands, which is why teachers' opinions and thoughts on the topic remain central to understanding how the curriculum is enacted in practice. Work inspired by Michael Lipsky is discussed below to provide a framework for understanding the centrality of teacher attitudes concerning enactments of the mandates laid out in the curriculum. The following section will also provide a framework for the empirical part of this thesis.

3.2 Teachers as Street-level Bureaucrats

Teachers' autonomy in schools concerning professional ethics and responsibility is often connected to a sense of commitment or accountability, argues Seghedin (2014). Seghedin notes the existence of social responsibility in teachers' autonomy, as teachers are expected to act in accordance with societal expectations and values. Additionally, although all professions could be perceived as responsible to the society and the development of the future, argues Seghedin, the role of teachers is exceptional in that “. . . only the professional educator becomes guilty if his/her acts are against the social desires or if the practice is evaluated as not corresponding to some criteria invoked by the professional competence standards” (2014, p. 16). Thus, professional ethics within the scope of education lies in formal regulations, such as rules or

laws, and the importance of teachers acknowledging their moral responsibility (Seghedin, 2014). In contrast to Seghedin's concept, Sherpa (2018) emphasizes teachers' sense of liability to act accordingly in their profession (Seghedin, 2014; Sherpa, 2018). According to Sherpa, teachers should have a sense of dignity in their teaching and thus provide quality education (2018). However, although teachers' institutional and personal expectations to discuss topics are mandated by the curriculum, the role of teachers' values and confidence affecting the capacity to act laws, that is, teach the contents of the curricula, has been disputed.

Teachers' confidence is also notable in discussing teachers' personal beliefs and values affecting their teaching. For instance, teaching topics outside the teacher's respective subject specialization may affect the quantity and quality of teaching, argues Mizzi (2013). In the context of science teachers teaching topics outside their subject specialism, Mizzi states that the planning and execution of lessons may prove itself noticeably more challenging than lessons within the teacher's specialization. Teachers may have to learn new information and related vocabulary in addition to understanding the nature of the subject before teaching it to students. Moreover, this new information must be reformed into activities or demonstrations to help students learn. However, this type of professional development requires active participation and willingness from specific teachers (Cooper et al., 2021; Aarnio-Linnanvuori, 2016). Further, the support of colleagues should be realized, as Cooper et al. (2021) name working with colleagues as one of the most valuable methods for professional development. Thus, in the context of teaching outside one's area of expertise, working collaboratively with other teachers can support the teacher's subject knowledge and thus improve the quality of teaching as well (Cooper et al., 2021; Aarnio-Linnanvuori, 2016).

In addition to support from other teachers, various factors may affect teachers' sense of confidence in teaching an area they are not as familiar with, for instance, curriculum-based pressure to perform better and the type of materials available as resources (Mizzi, 2013). In the context of this study, teachers could thus benefit from having more materials provided, as although there are no national standards that have to be met for teachers to continue in their profession, teachers' active participation in the development of their teaching practices is essential. However, many Finnish teachers highlight the accountability of students in test results, as teachers view themselves as 'facilitators of learning' rather than as the responsible party (Erss, 2015). According to Erss et al. (2016), the societal standing of teachers as appreciated professionals influences teachers' perceptions of their professional satisfaction and views of the national curriculum. Further, decision-makers place trust in teachers, which has improved general morality among teachers (Erss et al., 2016).

Regarding this thesis topic, English teachers in Finnish general upper secondary schools are usually specialized in the English language. However, the new curriculum for high school states that students should discuss and learn about sustainability, climate change, and environmentalism in their English classes (LOPS, 2019). This, in turn, may provide a challenge to English teachers, as the topic of environmentalism is not directly linked to English studies. Further, it seems that teachers in Finland are not given information or additional materials to support the teaching of environment-related content in English. This, in turn, may cause challenges in the outcome of teaching and learning, as a deficiency in provided materials and extent of teachers' background knowledge on the topic may result in a decrease of teachers' confidence, positive mindsets, and advancement of professional know-how (Mizzi, 2013; Zaid et al., 2020).

Decisions on the contents that should be taught are heavily influenced by the teachers' knowledge of the topic, according to Mizzi (2013). However, teaching is often seen to comprise of subject and practical knowledge (Bucelli, 2017). Often the role of subject matter knowledge is deemed important for quality teaching (Mizzi, 2013; Aarnio-Linnanvuori, 2016), although Zaid et al. (2020) found that expertise in the taught subject is beneficial but not a necessity to achieve good teaching. Aarnio-Linnanvuori (2016), in turn, stated that teachers' poor knowledge on their topic of teaching might confuse the students. However, in English teachers teaching about environment-related knowledge, teachers' personal level of knowledge on the topic may vary noticeably. This may result in a wide variety of quality in students' learning outcomes, as the quality of the lessons is contingent on the respective preparation time in the planning of lessons and materials, which is the teacher's responsibility.

Although many may deem teaching a topic out of one's area of expertise challenging, Zaid et al. (2020) discuss the possibility of experiencing it as a learning opportunity. Similarly, Huston (2009) states that teachers may feel reluctant to teach outside their specialization due to pressure to perform well or fear of losing students' respect. Alternatively, Huston argues that gaining students' respect does not correlate with content expertise. Instead, having a genuine interest in students' development and learning is viewed far more crucial than never failing to answer a question (Huston, 2009). In environmentalism education within English studies, having all of the correct answers is not necessary. Instead, supporting students' quest to learn about sustainability and the climate, whether it occurs in English or biology class, is essential. Zaid et al. (2020) argue that teachers should tell their students if they do not have expertise in the taught subject, as honesty may appeal to the students. Further, going by the curriculum and aligning the teaching to follow course policies are cited as influencing an environment of

credibility and trust, more than pretending to have the necessary, out-of-expertise knowledge would give (Zaid et al., 2020). However, the freedom and autonomy of Finnish teachers should be discussed, as although the curriculum offers a general framework for topics that should be included in education, the extent and nature of teaching may vary depending on the teachers' personal beliefs and values (Taylor, 2007).

The concept of *street-level bureaucracy* comes from Michael Lipsky's notion of public service professionals enjoying a great deal of power and responsibility in their actions and related consequences, states Hudson (1989). This phenomenon deals with the connection between service providers and service consumers. Service providers, in Lipsky's theory, could be teachers, doctors, police officers, social security workers, or other professions, where persons "interact directly with citizens in the course of their jobs and who have substantial discretion in the execution of their work" (Hudson, 1989, p. 43). Lipsky (1980) identifies this phenomenon as encounters with the government. He provides the example of many interacting with their teachers or through school board meetings rather than through official letters to members of Congress (Lipsky, 1980, p. 3). Moreover, a sense of power is related to street-level bureaucracy, which many may not recognize. The persons working in these service provider jobs have the power to manage service consumers. Additionally, in many cases, street-level bureaucrats have extensive autonomy in their field, set upon them from their respective agencies (Hudson, 1989; Taylor, 2007). Thus, teachers could be seen as street-level bureaucrats when their role in society and the amount of autonomy and power in interpreting the curriculum are noted.

According to Hudson (1989), this power and autonomy may drive street-level bureaucrats to form policies that they are not necessarily authorized to make. This sense of power is enabled by discretion, as most street-level bureaucrats call for making other persons' decisions or arrangements. In addition, Hudson argues that within Lipsky's concept, street-level bureaucrats have liberties regarding different decisions that have the power to make an impact on another person's life, such as whether someone should be arrested or who is 'teachable.' Taylor (2007) refers to street-level bureaucrats' ability to determine techniques, which will become policies, or rather, facilitate methods of overriding restrictions of the society. Having such an impact and ways of controlling the consumers are, for instance, the use of uniform, location, or timing (Hudson, 1989). In the context of schools, teachers are in control of the locations (i.e., schools) and the timing of different events and occasions. Hudson also mentions that street-level bureaucrats are seen as the 'good guys,' meaning they always have the consumer's best interest in mind (Hudson, 1989).

A vast amount of trust and autonomy is set on Finnish teachers, especially within the implementation of curricula (Tirri, 2014; Kupiainen et al., 2009). This trust is discussed concerning street-level bureaucracy by Hudson, as he states that “. . . in defense of their activities, organisations will frequently point to the expertise of their members rather than to the success of their endeavours,” as the discretion of street-level bureaucrats is, in many cases, beneficial for the organizations (1989, pp. 43-44). Thus, the commitment of teachers to do well and according to principles set in the curriculum falls to the practitioners themselves, as Hudson argues that the management of professional groups, such as teachers, must come from within the group (Hudson, 1989, p. 51). Tummers and Bekkers (2013) discuss the discretion of street-level bureaucrats in the context of teachers. Teachers have freedom regarding the adaptation and modification of teaching methodologies and materials, as they may make these adaptations to suit a specific student. Moreover, teachers can dedicate more time to individual students if they feel the need to do so. This discretionary action is viewed as an increase in client meaningfulness (Tummers & Bekkers, 2013).

However, teachers' autonomy and power as street-level bureaucrats come into question in determining the extent to which teachers may go in the implementation of policies (Tummers & Bekkers, 2013; Taylor, 2007). Taylor (2007) states that teachers are the perfect example of street-level bureaucracy, as they have the liberties to choose the best methods for their respective classes. However, Tummers and Bekkers (2013) raise the question of how far teachers can go in deciding the best way or reason to teach something, especially within topics of debate. However, clients (i.e., students) of street-level bureaucrats may show their appreciation for teachers' work. This meaningfulness is viewed as encouraging to many teachers (Tummers & Bekkers, 2013). This, in turn, could mean that if students are passionate about the inclusion of environmentalism within English studies, teachers of English may feel more compelled to implement the contents of the curriculum in their work.

Lipsky (1980) argues, however, that the realization of policy implementations requires the realization of street-level bureaucrats. The aspect of teachers' personal beliefs, values, and attitudes affecting their teaching should be discussed further. Tirri (2014) states that although teachers should refer to the objectives listed in the curriculum, they should also be aware of their own beliefs and substantiate the reason for their decisions and actions. Further, Tirri argues that “reflection-in-action and reflection on action are important skills in becoming a pedagogically thinking teacher” (Tirri, 2014, p. 603). As Finnish teachers are valuable professionals, one may discuss the effect of attitudes and values on their capacity to teach the curriculum contents.

4 Phenomenographic Methodology and Coding

This section will describe the methodology and coding for the empirical part of this study, which was conducted as a qualitative study. Barbour (2014) states that qualitative research provides insight into the construction of official models through social measures. Qualitative methods are a means of explaining why specific figures function as they do, through reflection on the activity and inactivity of persons and how people identify different choices and concepts (Barbour, 2014). Qualitative education is often used in the field of education because, as Atkins and Wallace state, qualitative methods are “valuable above all for its potential to change lives for the better, both those of teachers and of learners, and of the community at large” (Atkins & Wallace, 2016, p. 18). In qualitative research, the researcher may use different methodologies to analyze their data. Creswell and Poth (2018) list qualitative methods as ethnographic research, case study research, narrative research, phenomenographic research, and grounded theory research. According to Maher et al. (2018), this selection is based on the researcher’s use and formulation of theory in relation to research data.

Phenomenography is a method used to study persons’ different conceptions and understandings of certain phenomena: how people experience the surrounding world (Larsson & Holmström, 2007; Sin, 2010). It is most frequently used in educational research, states Sin (2010), as phenomenography describes the conceptions of phenomena. Thus, phenomenography may be used in an educational context to develop concepts and methods (Sin, 2010). Phenomenography is based on the assumption that there is only a certain number of ways of experiencing phenomena (Tight, 2015). The use of interviews is common in phenomenography as Larsson and Holmström (2007) argue that through speech and actions, one could perceive someone’s conceptions. This method is often used as the primary motive to choose phenomenography is to study how people perceive their experiences (Sin, 2010; Yates et al., 2012; Tight, 2015). Participants should feel open to talk about their experiences with the chosen topic and avoid superficial generalizations on how it should be for the researcher to interpret these experiences and conceptions (Larsson & Holmström, 2007). This is often considered in the structure of the interviews.

According to Sin (2010), the first interview questions are recommended to be more general, where the participants have an opportunity to reflect on their experiences. Then, the follow-up questions may detail and focus on the things that might not have been mentioned previously (Sin, 2010). Yates et al. (2012) agree as the beginning of a phenomenographic interview should be based on set questions, but as the interview goes on, the interviewer may

ask more specific questions. However, phenomenographic interviews are often encouraged to form around an interaction between the interviewer and the interviewee (Sin, 2010; Tight, 2015). Although the interviewer should remain professional and not influence the responses of the interviewee, Sin (2010) refers to paying attention to what the interviewee is saying, only using terms that are familiar to the interviewee (not introducing new terminology) and giving time to reflect and respond. Sin elaborates: “the consideration of the contextual elements in interviews is important for the subsequent stages of the research process, particularly for transcription and analysis” (Sin, 2010, p. 314).

When this methodology is used in qualitative empirical studies, participants’ experiences are studied and examined as a phenomenon (Larsson & Holmström, 2007). Thus, in the analysis of the results, the researcher should focus on the various perceptions rather than concentrating on an individual participant, states Sin (2010). The analysis of phenomenographic studies should focus on the participants’ experiences, argue Yates et al. (2012). Although there are various methods for data analysis within phenomenography, there are some principles that remain. For instance, predetermined views should be discarded, and the results should be focused on the collective experiences across interviews (Yates et al., 2012). The collected data is coded into categories, enabling the researcher to look at the results by themes (Sin, 2010). However, this requires rereading of the material to ensure that the researcher looks at the bigger picture. A description of categories presents the findings of a phenomenographic study, and quotations from interviews are often displayed for support and coherence (Sin, 2010; Yates et al., 2012). This process and presentation of quotes is used in this study as well.

Phenomenography was the chosen method for this study, as it served the research aim. The topic of this thesis deals with the general development of environment-related topics in English education in Finland and teachers’ preparedness to teach about these topics. As phenomenography is designed to study persons’ lived experiences and how persons experience different phenomena, this methodology is suitable for this study. As Sin states that “phenomenography describes the collective variations of participants’ conceptions of the phenomenon of interest,” this method satisfies the purpose of the study while describing the experiences of the teachers in question (Sin, 2010, p. 312).

Further, the use of phenomenography emphasizes the variability in participants’ experiences. This attention to variation in experience is essential for understanding how teachers perceive the teaching of environment-related topics in their English teaching. Although this methodology does not permit generalization concerning the experiences of the broader population of English teachers in Finland, phenomenography may establish the patterns one

can see where areas of concern lie. As teachers' experiences are bound to differ from one another, understanding and demonstrating variation within the results of this study affects the study's validity (Yates et al., 2012). The variation between experiences is best displayed through individual interviews with participants, as all teachers could describe their knowledge and experiences on the topic freely. Yates et al. (2012) argue that phenomenographic interviews have the potential to see the relationship between the interviewee and the object of research, thus portraying a sense of collective awareness on how a certain phenomenon is experienced: "gathering data at the individual level is the starting point for building a picture of collective awareness concerning how particular phenomena may be experienced" (p. 102). Concerning this study, this methodology can provide a glimpse into individual teachers' personal experiences and thoughts on the matter and a general view on English teachers' perceptions of preparedness to teach about environmentalism-related topics.

According to Sin (2010), when selecting the participants for a study, considering the research question(s), the quality of the data, and how the researcher plans to apply the findings is necessary. Further, in phenomenographic studies, the selection of interviewees is seldom random, as the focus is to see how a particular group of people experience a specific phenomenon (Yates et al., 2012). Thus, in this study, Finnish teachers of English were selected as the participants for this study, as the research questions and the nature of the study surrounded the curriculum for general upper secondary school in Finland, and the preparedness of English teachers to teach the topics related to the environment as cited in the curricula. The wide range of teachers asked to participate had an array of characteristics, including their personal and academic backgrounds. Further, the interviewed teachers had varying amounts of experience in teaching English in upper secondary schools, as some had worked in high school for less than two years, whereas some had over 25 years of experience. The varying characteristics of the interviewees are intended to maximize conceptual variations in the data.

4.1 Methodology

The aim of qualitative research is not statistical generalizations but the description of phenomena or understanding of action. Thus, the importance of participants having prior experience and knowledge on the topic is evident. Tuomi and Sarajärvi (2018) discuss *snowballing*, a method of finding participants for a study. The method illustrates having a specific group of persons, who are subject to being interviewed, who then further introduce other persons, who are also interviewed (Tuomi & Sarajärvi, 2018; Puusa, 2018). This method,

which may be considered from the perspective of ethics due to interested teachers contacting other potentially interested teachers, was applied in this study. Some Finnish teachers of English in high school were contacted through email and asked to participate in this study. Teachers were emailed in March 2021, and a copy of the invitation was emailed to the respective principals of the schools to ensure agreement from the institution. Some teachers who had agreed to participate asked potentially interested teachers to participate as well.

The interviews were conducted on Zoom, as it was accessible for the interviewees. According to Archibald et al. (2019), using online methods to gather data may be more appealing to participants due to efficiency and effectiveness – both cost and timewise. After confirmation of a few interviews, more persons were contacted and asked to participate. The aim was to arrange a minimum of ten interviews, after which the saturation of the data had to be considered. Tuomi and Sarajärvi (2018) state that, on average, fifteen participants are enough to saturate the collection of data. Out of 35 teachers who were asked, 11 teachers agreed to participate in this research. Thus, the response rate of this study is not exceptionally high. This may be due to teachers' personal interest in the topic of this study. Teachers who are not personally interested in environmentalism may not be motivated to participate in this study. Moreover, if teachers have personal interest, they may be more motivated to take part. Thus, in the analysis of this study, the personal motivation of teachers should be noted. Additionally, one interview had to be excluded from this study, as the teacher had not taught in a general upper secondary school and thus had no experience or knowledge on the topic.

The interviews were conducted as semi-structured interviews, or otherwise known as thematic interviews (Vilkka, 2021). Semi-structured interviews include predetermined themes and topics that are discussed to correspond to the research questions (Tuomi & Sarajärvi, 2018; Vilkka, 2021). In this study, seven interview questions were formed based on the research questions. Thus, the corresponding themes discussed in the interviews were: the Finnish curriculum and its use, environmentalism, sustainability, and related knowledge, and teachers' preparedness to teach. According to Vilkka (2021), the order of the interview themes is irrelevant, but the researcher should pay attention to the order the questions are in to avoid repetition or confusion in interpretation for the participants. Moreover, generally, one interview should only comprise of one theme to avoid confusion. Further, the researcher should pay attention to the formation of interview questions, as certain types of questions should be avoided. The possibility of answering 'yes' or 'no' to interview questions should be replaced with questions that generate a more extended response from the participants. Thus, questions

should begin with, for instance, what, how, or why (Vilkka, 2021). The interviews questions of this study were as follows:

1. How does the national curriculum affect your daily work as a teacher?
2. How familiar are you with the way English studies should include environmentalism and sustainability in the new reform?
3. How would you describe your own knowledge regarding climate change and environmentalism?
4. How would you describe your preparedness to teach about environmentalism within English studies?
5. What kind of tools or knowledge are provided for you to teach about environmentalism within English studies?
6. What kind of input would you need to feel more prepared to teach about environmentalism? From whom?
7. Are there any special issues related to the environment local to your school, that make this topic particularly relevant to you or your students?

The interviews were recorded through Zoom's recording tool, and a copy of the audio was recorded on a phone recorder. Zoom's recording tool is secure and suitable for research purposes (Archibald et al., 2019). The interviewees were informed of the recording beforehand, and all participants agreed to participate and be recorded. The participants were also informed of how the data is stored and disposed of after its analysis. However, before recording, the participants were asked when they graduated as English teachers and how long they have worked as English teachers. According to Vilkka (2021), collecting some background information on the participants of an interview help the researcher understand some of the reasons for participants' answers. For instance, this method enables the researcher to discuss the role of participants' years in a teaching profession in relation to participants' knowledge on this research topic (Vilkka, 2021). Additionally, as the participants consent to an anonymous interview, all participants were encouraged to develop their pseudonyms for this research. This method enables participants to remain anonymous yet recognize their responses in the published version of this thesis. Further, this method enabled confidentiality as the researcher may connect participants' responses, albeit using this method to ensure that participants' identities remain confidential, thus adding to the ethics of this study (Allen & Wiles, 2015).

After the interviews were conducted, the material was transcribed for its analysis. Vilkkä (2021) defines transcription in relation to research interviews as an arduous yet necessary process. Transcription is essential in the process, as it enables the researcher to interact with the material, and it facilitates means of analysis (Parameswaran et al., 2019; Vilkkä, 2021). That is thorough review, grouping, and classification (Vilkkä, 2021). Further, transcription enables the researcher to review the data faster than would be possible if the data were in video or audio format, argue Parameswaran et al. (2019). In this study, interviews' speech was written out with fillers such as *mhmm* or *uhmm* retained but pauses or coughs were not transcribed. According to Parameswaran et al. (2019), transcription of minimal encouragers such as those mentioned above may be onerous for the researcher. Thus, if the research topic does not demand or benefit from the inclusion of these encouragers, the discarding of such terms is justified (Parameswaran et al., 2019). Although an essential part of transcription is that none of the interviewee's phrases should be changed or modified (Vilkkä, 2021), the researcher may be selective in their transcription process (Parameswaran et al., 2019). Thus, repetitiveness or other redundancies were excluded for clarity in the quotations presented in this study.

4.2 Coding

After transcription of the data, the materials should be analyzed, as the researcher should reflect their observations in light of previous knowledge (Puusa et al., 2020; Parameswaran et al., 2019). According to Puusa et al. (2020), data analysis aims to describe and understand the phenomenon. The analysis process often begins with the grouping of the transcribed material, which is done by themes derived from the coded materials, states Eskola (2018). Regularly occurring phrases and words are put together into themes and compared to one another to ensure similar coding (Williams & Moser, 2019). Puusa (2018) defines coding as recognition and marking of repetitive words or phrases, i.e., patterns or themes. This categorization may be based on predetermined themes, or the interview material may provide new themes that had not been considered earlier in the process (Puusa, 2018). These themes are created to enable meaning-making processes (Parameswaran et al., 2019; Eskola, 2018). Coding can be done using an analysis program or colored pens (Eskola, 2018; Williams & Moser, 2019). This process does not eliminate any of the data, as the focus is on rearrangement (Eskola, 2018). In practice, a code is a phrase or a word that "symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data" (Saldaña, 2016, p. 3).

Once themes are created, the researcher will determine a code for the theme, state Williams and Moser (2019). Thus, the data is grouped into various themes and codes. Once themes appear to fall into two or more different codes, the researcher may create a new code. Not creating groups before fitting codes, however, is not encouraged to avoid incoherence among codes. After open coding, the researcher should have a list of categories or groups of codes. From open coding, the researcher will proceed to the second level, i.e., axial coding. This method recognizes the relations between open codes by refining the created categories, thus creating 'core codes.' In turn, this requires the researcher to reflect and cross-reference the open codes and categories. However, the researcher needs to determine the context between inductive (creating a theory based on the collected and analyzed theory) and deductive (collecting and analyzing empirical data to see its accuracy) coding. Further, the use of axial codes requires constant comparison to previous categories and codes, as well as 'line-by-line' coding, where the researcher concentrates on a specific part of the interview at a time to avoid the establishment of pre-existing structures (Williams & Moser, 2019).

Finally, selective coding consists of the integration of categories created in the open and axial coding phases, according to Williams and Moser (2019). In this phase, expressions are created to bring the pre-existing codes into a more abstract form. This, in turn, means selecting main categories and then arranging other selected codes under the main themes, which further enables the researcher to construct meaning out of the codes for further analysis and reflection on pre-existing theories or creating a new theory based on the findings (Vaughn & Turner, 2016; Williams & Moser, 2019). Eskola (2018) discusses the process of analysis, as mere categorization by codes does not highlight or reduce any parts of the data. Instead, the researcher may make connections between the groupings and find suitable quotations to feature in the analysis (Eskola, 2018). Only after the material has been reviewed, categorized, classified, and rearranged can the researcher choose whether the study focuses on specific aspects of the findings or whether all findings are presented equally (Eskola, 2018; Puusa; 2018). Distinguishing the classified themes specific to the topic of the study enables the researcher to compare the surfaced themes to each other, which makes the classification of these groups more accessible. Ultimately, the researcher has the power to determine which codes or themes apply to specific groups or classifications. From these groups, themes are connected and then formed into sub-categories and further into categories (Puusa, 2018).

The process of coding described by Parameswaran et al. (2019) was used in the analysis of this study's data. The data of this study, the interviews with teachers, were transcribed for analysis. The transcribed material was then coded through recognition of repetitive phrasing or

words. Meaningless phrases, such as ‘uhmm’ or ‘mhmm’ were also reduced in this reduction process (Tuomi & Sarajärvi, 2018). Repetitions were also reduced from the data for clarity. Further, in this process, long phrases and responses from the interviews were sectioned into different categories. The following table (Figure 1) illustrates the original and the reduced material:

Original phrase	Reduced phrase
<p>But of course uhmm the theme pops up indirectly probably when when you deal with issues like like society and science, which are the field of courses four and and umm six sorry courses four and five so uhmm one entire optional course and and in a couple of compulsory courses as well</p>	<p>But of course the theme pops up indirectly probably when you deal with issues like society and science, which are the field of courses four and five so one entire optional course and in a couple of compulsory courses as well</p>

Figure 1. Reduction example

Reduced phrases were then listed and formed into groups with other similar phrases, i.e., clustered (Tuomi & Sarajärvi, 2018). These groups, or sub-categories, are named to describe the coded material in the group. In this study, initially, reduced phrases were clustered into 19 sub-categories. All sub-categories and codes were then sent to the supervisor of this thesis for inter-rater reliability testing. The inter-rater categorized 10 percent of the codes, every tenth example code, into the provided sub-categories. These categorizations were then compared to original categorizations, and any disagreements in categorization were discussed. The areas of disagreement fell into the awareness categories, which were fuzzy categories concerning teachers’ knowledge and preparedness to teach the contents of the new curriculum reform and teachers’ evaluation of personal knowledge of the matter.

Further, some codes had different categorizations due to the interviewer’s knowledge of the participant. Thus, the complete lack of context on some codes was deemed challenging, as some participants mentioned their stance on the topic before or after their responses, which affects the interpretation of their answers to the interview questions. However, upon reflection

and discussion after the inter-rater reliability testing, some categories were combined or discarded as they did not serve the purpose or aim of this study. After discussion, the percentage of agreement from this inter-rater reliability was 70 percent.

Finally, ten sub-categories were formed. The process of open coding proceeded into axial coding, as axial codes were created after forming the sub-categories. Finally, the axial codes were abstracted into categories. The following table (Figure 2) illustrates the coding process from quotations to categories by providing an example from one category.

Quote	Code	Sub-category	Axial code	Category
It [the curriculum] really affects the way we put things together and the way we design our courses and things.	The curriculum affects everything.	The curriculum works as an interpretable framework for teaching	Curriculum as framework	Curriculum work
Everything I do has to be in accordance with the national core curriculum.	I teach according to the curriculum.			
Well of course that's [the curriculum] the big framework.	The curriculum is a framework.			

Figure 2. Open and axial coding example

The axial codes created in the process of coding are presented in the results section. Each category is presented with a short description, and some example quotes from teachers to provide the reader with some context of each category's qualities.

4.3 Validity and Reliability

The assessment of research reliability is necessary to avoid mistakes, argue Tuomi and Sarajärvi (2018). This process requires the researcher to be objective and truthful, as the evaluation of a study's validity (i.e., the research has studied what was expected) and reliability (i.e., repeatability of the results) also defines the coherence, or lack thereof, of the study (Tuomi & Sarajärvi, 2018). Barbour (2014) highlights the importance of recognizing the researcher's background in producing qualitative research, as one's values and attitudes may affect one's

assumptions regarding the data. The data of this study was collected through individual interviews with upper secondary teachers of English in Finland through the online videoconferencing tool Zoom. Although the study aims to see teachers' views on the integration of environmental topics in English studies, the results of this study may be generalized. According to Brinkmann (2013), the findings of one context may not be generalized on a larger scale. Thus, the results of this study cannot be generalized to picture the views of all English teachers in Finland. However, the results of this study may be used to portray what some teachers think of this phenomenon and how they perceive it. This may then give an idea of how most teachers may feel, but as qualitative studies do not offer statistical generalizations, the results of this study may not be generalized (Brinkmann, 2013; Vilkkä, 2021).

According to Brinkmann (2013), qualitative interviewing is not a reliable source of data, as the interview is only between the interviewer and the interviewee. Thus, the meanings behind quotations can only be fully understood by the persons present in the interview. Further, the analysis of research findings is not objective, as they may be interpreted in various ways. However, this does not discard the possibility for analysis and interpretation, but the effect of personal interviews between two persons cannot be entirely reliable (Brinkmann, 2013). Further, Vilkkä (2021) argues that the formation of interview questions may affect the answers given to the researcher, as participants may wish to respond according to the researcher's assumptions and wishes. This, in turn, may disturb the interpretation of the material and its extent concerning the objectives and aims of said research (Vilkkä, 2021).

Additionally, the interviews were conducted online on Zoom, a video conferencing tool. This method may cause some reliability issues due to technical issues, which may affect the coherence of the interviews, argue Archibald et al. (2019). Moreover, the interviewees' environment for the interview duration could not be guaranteed, so external elements might have affected the interviewees without the interviewer's knowledge. However, conducting interviews on Zoom between two persons has been taken into consideration in the evaluation of reliability for this study, and the aim has been to explain the process and analysis of the interviews as objectively as possible.

The process of collecting, handling, and analyzing the data has been described with attention to detail to provide the reader with sufficient information on the validity and reliability of this study. The categorizations of axial codes were reviewed in an inter-rater reliability test with a university professor. The inter-rater reliability score was 70 percent, which affects the reliability of this study as well. This testing affected the perception of the results, as fuzzy borders were discussed, and the final categorizations were agreed upon. Further, the results of

this study are as expected, which may prove this study's validity. However, it should be noted that over thirty Finnish teachers of English were asked to participate in this study, and ten teachers agreed to participate. One may consider the motivations of teachers to take part in this research, as teachers with no personal interest or motivation towards the topic of this study are more likely to discard the invitation to participate or choose not to take part. Alternatively, if teachers are personally interested in the topic of research and feel confident in their experience and knowledge on the topic, they may feel more comfortable participating in such a study. This, however, may alter the results of this study and thus affect the validity and reliability of this study.

5 Teacher Interviews' Results and Analysis

This chapter describes the axial codes created from interviews with ten Finnish teachers of English to determine answers to this study's second and third research questions. Teachers' perceptions on the teaching of environment-related topics within English studies are examined through categorizations. All ten categories are presented, described, and some examples of interview quotations are offered to provide a comprehensive analysis of the results. The findings are then discussed in relation to each other, the curriculum study, and other relevant research.

5.1 Results on Teachers' Perceptions

As a result of axial coding in this study, ten categories were created from interviews with Finnish teachers of English in general upper secondary schools around Finland. The categories are as follows: *Curriculum as framework*, *Curriculum reform familiarity*, *Perspective of teaching contents*, *Confidence in teaching outside area of expertise*, *Lack of confidence in teaching outside area of expertise*, *Collegial support*, *Individual responsibility*, *Materials available*, *Input needed for support*, and *Concerns and challenges in environmentalism teaching*. These categories will be presented with short descriptions of each category to offer the reader an idea of the contents of each category. Further, some quotes from the teacher interviews will illustrate how each category was formed from the data.

Category *Curriculum as framework* consists of teachers' perceptions of the curriculum in their work. Prompted by the interview question "how does the curriculum affect your work as a teacher," teachers referred to the curriculum as a framework, which they follow or act according to in their work. Further, this category features answers, where teachers stated that they refer to the curriculum to see the general goals and objectives for particular themes or courses. Responses in this category stated that the curriculum has a role in the planning and implementation of courses, but three teachers mentioned that the curriculum is not actively on their minds at school. Moreover, the curriculum works as a framework in the background, as seven teachers mentioned autonomy within the use of the curriculum, stating that the curriculum can be applied or adapted to suit the chosen courses. Furthermore, four teachers mentioned the association between the national curriculum and their school's curriculum. Some example answers from this category include the following:

- (1) Katri Tietenki se [opetussuunnitelma] on semmonen tausta-asiakirja, mikä niinku antaa raamit opetukselle.

Of course the curriculum is like a background document which like gives the framework for teaching.

- (2) Henna It [the curriculum] affects the planning and it affects all the themes that we do, so it kind of trickles down. So even if it's not something that's at the forefront of my mind when I'm walking to my classroom or when I'm starting my lesson, it's kind of an underlying thing that affects everything.

- (3) Sari Sitä [opetussuunnitelmaa] voi soveltaa monellakin eri tavalla.

It [the curriculum] can be adapted in many different ways.

Category *Curriculum reform familiarity* consists of teachers' responses about their knowledge of the curriculum reform. The answers in this category feature codes where teachers cited the courses or contents of the curriculum reform or reflected on the general inclusion of environmental topics within English studies in the new curriculum. Further, teachers mentioned some of the methods and strategies they plan to use to implement the new curriculum, which transmits a sense of familiarity regarding the contents of the reform. Three teachers also mentioned the similarity to the 2015 curriculum and did not think that the contents of the new curriculum differed from the previous ones noticeably. Quotes in this category also feature responses where teachers reflected on their experiences creating the local curriculum for their respective schools, stating that the new reform's contents are familiar, as they have had the chance to work with it through curriculum work. Eight teachers referred to courses five and seven in the new curriculum, as they listed methods they plan to use in their teaching. These responses are included in this category, as they transmit a sense of familiarity with the contents of the curriculum reform. Some example answers from this category include the following:

- (4) Henna I wouldn't claim to be an expert, or I don't remember anything by heart, but I think I've got a reasonable understanding [of the new curriculum].

- (5) Sari No tiedän sen verran, että varmaan sisällöt ei kauheesti muutu nyt sen uuden OPS:in myötä, mutta siinä voi olla sitten uusia tavoitteita, uusia näkökulmia.
Well I know that the contents don't probably change too much with the new curriculum, but it may have some new objectives, new perspectives.

- (6) Aleksi But of course the theme pops up indirectly probably when you deal with issues like society and science, which are the field of courses . . . four and five, so one entire optional course and in a couple of compulsory courses as well. . . It's

[climate change/the environment] not a major theme. There are so many themes that we have to deal with during the compulsory courses. It's just one among many.

Category *Perspective of teaching contents* features teachers' thoughts on the local and global perspectives of teaching about environmental topics in English studies. Most of these replies were prompted by the last question of the interview regarding issues local to teachers' respective schools that make environmentalism important to discuss in class. Most responses mentioned some local environmental topics or issues but stated that the environment-related content in English studies is mainly from a global perspective. This is justified by saying that it is good to find sources from English-speaking countries to enhance students' conceptions of the global issue at hand. Four teachers said that including more of the local perspective could be beneficial but that it may cause some disagreements or issues in the classroom due to its nature. This category also features responses where teachers stated that there are few environmental matters related to the students or the local environment. However, these responses are not connected to the dismissal of the topic but did not highlight the local perspective in teaching environment-related topics in English studies either. Some example answers from this category include the following:

- (7) Aleksi If you think about it from the students' point of view, there's nothing probably particularly alarming related to climate change and local environment in the region they live in . . . It's something that's not an everyday issue in their lives.
- (8) Liina Onhan tässä tota ympäristöaiheita silleen jos miettii, tässä on esimerkiksi ihan lähellä semmonen Natura-alue, jota yritetään suojella, mutta jonka alle yritetään rakentaa kansainvälinen kaivosyhtiö-kaivosta . . . Täällä on paljon semmosia luontoalueita, . . . mitä pitäis niinkun suojella ja mistä pitäis niinkun pitää huolta, mutta ei niistä kyllä [puhuta] kun ne on vähän semmosia et jos puhutaan sitten että luonto vastaan työ.
There's environmental topics here if you think about it, for instance there's Natura peatland, that they're trying to protect, but they're trying to build an international mine . . . There's a lot of nature conservation areas . . . that they're trying to protect and that we should take care of, but you don't really [talk about them] because they're a bit like if you consider nature versus work.
- (9) Milja Kun hakee niitä lähteitä ja ideoita ja artikkeleita englanninkielisestä mediasta niin usein ne aihepiirit ja kohteet on jostakin englanninkielisistä maista. Et aika paljon tulee niinku ajateltua sitä, et opiskelijat ehkä oppis tietämään myös sitten englanninkielisten maiden tilannetta . . . Usein yritän ottaa jotain mikä parantaa maantietämystä ja sitä kulttuuria niistä maista, joita opettaa. Et tavallaan se

Britannia ja Amerikka ja Australia ja et tavallaan katsottais tavallaan myös Suomen ulkopuolelle.

When you're looking for sources and ideas and articles from English media, often the topics and objects are from English speaking countries. So you think about students learning more about English speaking countries' situations a lot . . . I often try to find something that improves their knowledge of countries and cultures that I teach about. So sort of Great Britain and America and Australia and so that we would sort of look outside Finland too.

Category Confidence in teaching outside area of expertise features teachers' perceptions of their abilities to teach about environment-related topics in English studies, although the topic is outside their area of expertise. Responses in this category consist of evaluations of teachers' knowledge and skills related to the topic, descriptions of their lifestyles or habits, which may portray an image of environment-consciousness, and indications of personal interest in environmentalism and climate change. Further, responses where teachers stated their knowledge of the topic to be above average or better than average were categorized in this group. Teachers' responses that indicated personal interest or otherwise conscious ways of living were categorized as confidence in teaching outside area of expertise, as teachers' replies conveyed a sense of prior knowledge or personal interest of this area, which could be interpreted as confidence to talk about environment-related topics. Some of these responses listed sources teachers look for, such as journals, TED talks, or foreign news. Many responses in this category featured teachers' perceptions of their ability to teach about environment-related topics, as they referred to their knowledge or availability of sources. Some example answers from this category include the following:

- (10) Liina Kyllä se [tietämys] on minusta aika hyvällä tasolla, koska kuitenkin minä olen vähän tällöinen ekoihminen. . . Ei ole semmoinen aihe mistä ei niinku, mistä en osaisi puhua, koska niitä on kuitenkin opiskeltu monen monta kertaa, pitkästi harjoiteltu niitä ja on tuttua asiaa, mielenkiintoinen mun mielestä.

I think it's [knowledge] at a good level, because I deem myself sort of an eco-person. . . It is not a topic that I like couldn't talk about, because these things have been studied so many times, really practiced these skills and it's something I'm familiar with, interesting in my opinion.

- (11) Anu Kyllä se mun henkilökohtaisessa ajattelussa on läsnä niin ehkä se sit jotenki näkyy opettamisessa jonain tiettyjen aiheiden valintana.

It is present in my personal thinking so maybe it somehow shows in my teaching in the form of choosing certain topics.

- (12) Aleksi [I am] relatively prepared. I've got the background knowledge, I've got the materials, I've got my personal interest and also when students do project work and all that, I get to, have to, either way, read quite a bit of their materials and sources and familiarize myself with that so I'm pretty confident.

Category *Lack of confidence in teaching outside area of expertise* consists of teachers' negative perceptions and evaluations of their ability to teach about environment-related topics in English studies. This category featured answers where teachers discuss their skills and knowledge regarding the teaching of environmentalism and climate change and reflected these skills and know-how to their level of confidence. Teachers referred to their lack of knowledge regarding the topic or reason their lack of confidence to derive from a lack of materials provided for them. Further, seven teachers mentioned other challenges, such as lack of time, which affects their sense of knowledge in environment-related topics and affects their confidence to teach about the topics. Some example answers from this category include the following:

- (13) Anu En mäa oo mitenkää erityisen perillä siitä ympäristöaiheiden sisällyttämisestä.
I'm not really very knowledgeable about the inclusion of environmental topics.
- (14) Katri Tosiaan aikailla sen oppimateriaalin mukaan meen, että en kauheesti niinkun ota aiheita sen kielten ulkopuolelta.
Basically I just go with the materials, I don't really focus on topics outside the scope of languages.
- (15) Heidi Pitäis kyllä tutkia asiaa aika paljon . . .mut jos tästä pitäis lähtee pelkällä omalla kokemuksella ja tietopohjalla niin aika heikko [valmius opettaa]
I would have to study the topic quite a bit . . . but if I had to teach based on my own experience and knowledge, it [preparedness to teach] would be quite weak.

Category *Collegial support* features answers where teachers mention or suggest collegial collaboration in teaching about environment-related topics in English class. Six teachers mentioned biology or geography teachers, or other colleagues that they could work with to increase the quality of teaching. Further, teachers mentioned previous collaboration or list possibilities for teaching the new curriculum reform and its contents. Concerning collegial support, five teachers mentioned the benefit of applying other teachers' competencies and expertise. Moreover, the support of other teachers and the ability to discuss possibilities and methods with other teachers were appreciated. Although the majority of collegial support was connected to teachers of sciences, other English teachers' support was mentioned. Some example answers from this category include the following:

(16) Henna What I'm excited about in terms of the new curriculum is . . . the possibility to work with colleagues.

(17) Liina Tossa vois olla se auttaa että olis niinkun ensinnäkin toisia enkun opettajia, jotka ovat niinku harrastaa tai ovat kiinnostunut samalla tavalla siitä asiasta, että voisi niinku yhdessä niitä miettiä, koska kuitenkin se tuota englannin opiskelu pitäisi olla se niinku tärkeä asia siinä. . . Sitten pitäisi pystyä tekemään semmoisia niinku yhteistyökursseja jossa niinku ne sisällöt olisi just jostain maantieteestä. Kemiakin siihen liittyis, vaikka joku tiede ja vaikka mihin. Et olis niin että se kieli on siinä sitten työkalu. Mutta siihenkin olisi hyvä, että jotkut vähän niinku yhdessä jonkun kanssa niitä mahdollisia yhdistelmiä.

What could help there is if, firstly, there's other English teachers who are also interested in the topic so you could sort of think about it together because learning English should be the important thing. . . Then you should be able to do like collaborative courses where the contents could be for instance from geography, chemistry is also related, sciences for instance. So you could use English as the tool. But even then, it would be good to look at the possible connection points together.

(18) Sari Tietysti se on niinkun opettajien voimavaroista ja mielenkiinnosta ja tämmösestä onko yksinkertaisesti aikaa tehdä jotakin vaikka yhteistä yhteisprojekteja muiden aineenopettajien kanssa tai ylipäättään lisätä sitten niinkun omaa aineopettajien keskinäistä yhteistyötä.

Of course it depends on teachers' resources and interest and things like that whether you simply have the time to do a collaborative project with other subject teaches or in general add the collaboration between other teachers.

Category *Individual responsibility* includes responses from teachers where the individual responsibility to find resources and training is emphasized. These answers included teachers' discussion on the amount of input, or lack thereof, offered to them to teach about environment-related topics. Thus, the responsibility of finding materials, training, or other input was left to individual teachers. Furthermore, four teachers mentioned that no input had been provided for the new curriculum, and the lack of provided training or materials was criticized. Further, finding more materials and methods based on personal interest was mentioned. Some example answers from this category include the following:

(19) Katri Ehkä sillai englanninkielisiä ei nyt tarjota varsinaisesti kauheesti, että mitä sitten itse etsii tietoa tai jotain semmosta sen opetuksen tai sen oppimateriaalin lisäksi joskus saattaa etsiä, youtuubista tai jostain tämmösistä.

Maybe like materials in English haven't been provided too much so it's just what

you look for in addition to the materials you might look for from youtube or something similar.

- (20) Sanna En kyllä taas koe saaneeni mitään sen kummempaa niinkun opetusta tai koulutusta tähän aiheeseen et se on lähinnä just sitä omaa omaa mielenkiintoa.
I don't really see myself receiving any type of teaching or training for this topic so it's basically just your own personal interest.

- (21) Milja No tätä on aika vähän ollut mun mielestä se mitä oon nähnyt eli kyl mä kokisin et tässä aika paljon jää ehkä tän yksittäisen opettajan varaan, että täytyy olla itse aktiivinen että kaikki koulutukset täytyy itse etsiä ja hakeutua niihin että ainakaan niissä mun työpaikoissa ei oo oikein tullut tolla aihepiirillä vastaan mitään sellasta opettajien yhteistä koulutusta tai teemapäivää.
Well there's been quite a little from what I've seen so I'd say that a lot of it is left on the individual teacher so you have to be active so you have to look for training by yourself and commit to them so at least in my workplaces there hasn't really been any joint training or theme day on this topic.

Category *Materials available* include answers where teachers refer to pre-existing materials that they are offered or materials they have found to teach about environment-related topics in English studies. Teachers listed textbook sources, online sources, training, and other projects or similar activities that could be used as material in English class for this topic. Three teachers mentioned the availability of resources but mentioned the need for modifying and altering the material to suit their class. Six teachers mentioned that the coursebooks provided by publishers are often used, as these books may provide the necessary materials. However, four responses in this category referred to the teachers' responsibility in saying that there are materials available, but the teacher has to do the work, as expected. Further, teachers mentioned the availability of resources and materials but mentioned that they may not know how to find good websites or training. Some example answers from this category include the following:

- (22) Henna I think that the problem when teaching English isn't that there's no resources but that there's just so much that finding good ones . . . I would say that you know the course book provides the sort of kind of adequate vocabulary and exercises.
- (23) Sari Materiaalista ei varmasti oo puutetta vaan nimenomaan että miten sitä karsii ja mistä löytyy hyviä materiaaleja.
There's surely no lack of materials but namely how to weed it out and where one could find good materials.

- (24) Aleksi In terms of textbooks and material provided by publishers the more the better it's always you know not to say if you have an abundance of material that way you can just take your pick. You can differentiate between different levels of language learners and different groups, because they are heterogenous even in the upper secondary school to some extent.

Category Input needed for support includes teachers' perceptions of what kind of input they would like to feel more prepared to teach about environment-related topics in English studies. These answers consisted of teacher training improvements or additional courses, possibilities such as field trips, and more support in the form of materials, collaboration with other teachers, and methods teachers could use in their teaching. Teachers mentioned associations for language teachers or other networks that could provide suitable training or material for teachers. Further, some teachers thought that guest speakers from native English-speaking countries regarding the topic of environmentalism could be beneficial for the teachers and students. Additionally, responses from this category featured teachers' need for input regarding the perspective in teaching, i.e., bringing a sense of hope to a topic that may cause anxiety among students. Some example answers from this category include the following:

- (25) Liina Suuremmassa maailmassa tai etelässä niin kyllähän siellä vois sitten tehdä jotain opintoretkeä ja tehdä vierailuita mutta täällä meidän leveillä ei oikein kun pikkukylässä asutaan kaukana kaikesta.

In the bigger world or down south you could do field trips and visitations but here at our level it's not really [possible] because we live in a small village far from everything.

- (26) Henna I guess that there could be training available if you're interested and you're not sure what to do but I mean, I don't know, you could always you know invite experts in and borrow someone else's expertise. You don't need to be interested in everything yourself.

- (27) Sanna Se et miten sen niille opiskelijoille mielekkäällä tavalla ja sellasella tavalla, että ne niinkun kiinnostuisi asiasta ehkä tai jotenki et semmosia erilaisia tapoja käsitellä aihetta ehkä sitten.

Just how it could be [presented] in an enjoyable way for the students and in a way that gets them interested in the topic or like different ways to handle these topics maybe.

Category Concerns and challenges in environmentalism teaching features teachers' general concerns regarding the teaching of environmental topics in English class. Eight teachers also

brought up some ideas or solutions to challenges related to the topic. The answers mentioned, for instance, choosing perspective, lack of time and opportunities, and the need for sensitivity in the discussion of these topics. Two teachers mentioned the timing of courses, saying that due to optional environment-related courses' late timing with regard to the final matriculation exams in upper secondary schools, some students may choose not to take the course, or they may not have enough time to go over the topics in-depth. Additionally, the superficiality of the topic was mentioned as four teachers would hope to have more time to focus on the theme. Moreover, three teachers hoped to have more attention to the perspective of the topics and the focus on language learning. Some example answers from this category include the following:

(28) Liina Siihenkin tarvii semmosta tiettyä sensitiivisyyttä opettajalta, että muistaa sitten aina että on isompia juttuja niinku heille [oppilaille] kuin mitä ne saattaa meistä tuntua. . . Vähän niinku tekee tiukkaa saaha tuota miten ne [ympäristöaiheet] saadaan tuota käytännössä toteutettua.

You do need certain sensitivity from the teacher so that you remember that these things are bigger for them [students] than they may appear for us. . . It's a little challenging to get it [environment topics] actualized in practice.

5.2 Discussion

The results of this empirical study are presented to answer the second and third research questions of this study. That is, how do teachers' autonomy and preparedness affect the implementation of curricular contents, and what kind of input do teachers need to feel more prepared to teach about a topic outside their area of expertise. By using a phenomenographic method, a composite picture of teachers is built, although these results may not be generalized to show the thoughts and characteristics of all teachers. Furthermore, this composite picture may be contradictory due to human nature. Teachers may, for instance, say contradicting things or perceive things differently than what they may describe. However, this chapter aims to discuss the results mentioned above in the empirical part of this thesis. As the first research question was answered in the third chapter, this discussion will heavily rely on analyzing the empirical data and its results to answer research questions two and three.

The role of the curriculum in teachers' professions was discussed by teachers of English in Finnish general upper secondary schools. Nine teachers referred to the national curriculum of Finland as a framework that one may consider for general objectives and aims regarding English courses and module contents (category *Curriculum as framework*). This indicated a sense of autonomy and freedom in interpreting the curriculum (Tirri, 2014; Kupiainen et al.,

2009). Although the focus is on the national curriculum, four teachers discussed their respective local curriculum and related work. Four teachers mentioned looking at their local curriculum and the national one, as the municipality level work may have more specific instructions or contents they wish to include in the courses (category *Curriculum reform familiarity*).

Further, concerning the curriculum reform, four teachers mentioned their work with the local curriculum, as it enabled many teachers to familiarize themselves with the curriculum and think about the contents connected to practical teaching methods and materials. Others, in turn, mentioned that they have not had time to get to know the new curriculum and could thus not provide a good description of the courses or objectives (category *Curriculum reform familiarity*). A few teachers, however, mention the similarity between the 2015 and 2019 curricula (e.g., quote (5) Sari). Although the 2019 curriculum courses are described as modules, the contents of the modules are noticeably similar to the 2015 curriculum (LOPS, 2015; LOPS, 2019). For instance, regarding the voluntary courses, the modules have stayed the same. Mandatory courses' names and order in which they are offered have changed, but the contents and objectives of the courses remain similar to the 2015 curriculum (LOPS, 2015; LOPS, 2019).

Teachers seemed to recognize and appreciate the contents of the national curriculum and mentioned that although they do not actively think about it, the curriculum affects everything they do (e.g., quote (2) Henna). Although the curriculum gives seemingly significant guidelines, themes, and objectives, six teachers mentioned the generality of the framework. Six teachers also mentioned the lack of specific content, making the curriculum seem superficial to some teachers (category *Curriculum as framework*). Chan et al. (2017) discuss the challenges of generic competencies in the curriculum, stating three main challenges: 1. a lack of curriculum support from institutions, which shows as a lack of professional development possibilities and thorough consideration of the curriculum, 2. issues with the conceptualization of competencies and inefficiency in pedagogy and assessment, and 3. teachers' and students' perceptions of these competencies. Similar challenges could be noted upon inspection of the Finnish national curriculum. Based on the interviews with teachers, the contents of the curriculum remain superficial. Additionally, due to a lack of support in professional development (i.e., training) and conceptualization of the curriculum's contents, individual teachers have the responsibility to find materials independently (category *Individual responsibility*). Autonomy and individual responsibility are integrally connected to curriculum implementation. Although this provides the teachers with a significant amount of freedom and liberties in interpretation, it also creates a workload for the individual teacher.

The curriculum contents were discussed through reflection on the curriculum reform and teachers' awareness of the reform's changes and contents (category *Curriculum reform familiarity*). Generally, teachers claimed to have good knowledge of the contents of the 2019 national curriculum reform (e.g., quote (4) Henna). Eight teachers described the involvement of environment-related topics in English studies, which transmits the view that these teachers knew the contents of the reform. Discussing sustainability as a general theme through English courses was discussed, as three teachers mentioned that environment-related topics resurface indirectly through different topics, such as society or sciences (e.g., quote (6) Aleks). Five teachers mentioned the relatedness to transversal competencies or overarching themes, such as climate change and sustainability, as environment-related topics are often discussed in connection to other topics. For instance, active citizenship and youth activity were mentioned as general topics discussed in English class. However, teachers considered environment-related topics to be superficial in the curriculum.

Although the topics of sustainability and environment-related issues are mentioned in the national curriculum, the extent of inclusion may vary depending on the school and teacher. Although the 1985 national curriculum, for instance, mentions teachers' requirement to fulfill the aims of the curriculum in collaboration with students, there is variation in the interpretation of these aims and objectives (LOPS, 1985). For instance, teachers who do not deem environmentalism important may choose not to discuss these topics in-depth in class, resulting in a lack of realization of transversal competencies. Thus, environmentalism may be discussed more in-depth in geography or biology class, although the national curriculum emphasizes the role of transversal competencies. These competencies aim to provide the students with a holistic worldview, where knowledge in different areas of life is deemed necessary (e.g., LOPS, 2019; Haapaniemi et al., 2020). Aarnio-Linnanvuori (2016) states interdisciplinarity to be beneficial in understanding complex phenomena, such as environmental topics, as the method may decrease the topic's fragmentation by connecting it to the real world.

However, the transversal competencies presented in the national curriculum could be realized to their full potential. This would require teachers to attend further training and receive provided materials to realize the aims and objectives of these competencies (category *Input needed for support*). This type of professional development could also promote a culture where lifelong learning is encouraged through teachers' active learning (Mizell, 2010). Additionally, training and materials should be designed for language teachers, as the different perspectives of the topics should be developed, as this type of training has the potential to rectify teachers' common misconceptions (Aarnio-Linnanvuori, 2016). However, teachers' willingness to

participate in voluntary, additional training courses or lectures may vary (Gorozidis & Papaioannou, 2014). For students to truly become climate-conscious and sustainable global citizens, the transversal competencies should be supported by individual teachers and systematic support from the Board of Education or other organizations. Further, collegial support should be applied and supported. Cooperation and applying different teachers' expertise have the potential to offer truly quality environmentalism education (e.g., quote (26) Henna). Teachers should be allocated time to plan different modules and themes to cooperate with other teachers.

Eight English teachers said to have contacted or are planning to cooperate with their respective schools' biology or geography teachers, as they may have more knowledge on the topic (category *Collegial support*). This cooperation may be beneficial, as the colleague may bring in their expertise, thus allowing the English teacher to focus on English teaching, rather than having to learn more about the topic. Further, Aarnio-Linnanvuori (2016) argues that this type of cooperation benefits the students if contents that support each other are studied in different topics simultaneously. For instance, the topic of greenhouse gases could be studied in biology class, and the impact of releasing these gases could be discussed in English class by using English as a tool (e.g., quote (17) Liina). Aarnio-Linnanvuori (2016) suggests close cooperation between colleagues, as this has the potential to produce interdisciplinary discourse. However, this process requires an active learning approach from the teachers involved (Aarnio-Linnanvuori, 2016). This was mentioned in this study's interviews, but some teachers mentioned the amount of effort and energy that this type of cooperation requires from teachers and that persons who do not have much personal interest in the topic may not see this method as worthwhile (e.g., quote (18) Sari).

Variation in the learning style and provided materials can be connected to Michael Lipsky's notion of street-level bureaucracy. As teachers are considered public service professionals that enjoy power and responsibility in society (Hudson, 1989), the autonomy provided for them by the state has the potential to affect the lives of their students. Especially in Finnish context teachers are seen as professionals, which gives teachers notable freedom in their field (Uusiautti & Määttä, 2013; Tirri, 2014). Teachers' autonomy in adapting teaching methodologies and used materials may thus result in teachers' personal interest affecting the contents of English studies immensely (e.g., quote (11) Anu). Through street-level bureaucracy, the autonomy of Finnish teachers may result in variation within the extent of environmentalism inclusion in English studies. If teachers are personally interested in the topic of study, feeling more compelled to discuss the topic in-depth in class and feeling more confident about teaching

overall is plausible (category *Confidence in teaching outside area of expertise*). In contrast, if teachers are not personally interested in environmentalism, they may only discuss the topic to the extent of their textbooks (category *Lack of confidence in teaching outside area of expertise*, e.g., quote (15) Heidi). Thus, teachers' liberties in choosing the extent of the contents of courses may result in noticeable variation within students' environment-related education in English studies in Finnish general upper secondary schools (e.g., Tummers & Bekkers, 2013).

Related to the liberties in choosing the contents of study, teachers may choose the perspective and contents of environment-related topics in English (category *Perspective of teaching contents*). General upper secondary school English teachers were asked about their local environments and inclusion of local environmental matters in their teaching. Nine teachers mentioned some local environmental issues but deemed it unnecessary to discuss these in class or did not want to include these topics in class, as they could cause some disagreements among the pupils or with their parents (e.g., quote (8) Liina). Additionally, teachers argued that only talking about environmental matters from English-speaking countries could improve students' cultural awareness and knowledge (e.g., quote (9) Milja). However, according to the 1985 National Curriculum, municipalities are responsible for ensuring that local environmental matters and challenges, such as nature conservation projects as mentioned by four teachers, are discussed in class to ensure a broad understanding of societal topics (LOPS, 1985).

Further, discussing local matters in class has the potential to familiarize students with their local environments, which is supported in the 2019 curriculum as well. The national curriculum mentions the local curriculum or local environment concerning most subjects and general transversal competencies, as it gives municipalities room to design courses in a way that identifies local aspects (LOPS, 2019). Depending on teachers' respective municipalities and schools, their local curricula may encourage the local perspective in different courses, including English studies. However, often the contents of the curriculum are modified by the teachers (e.g., quote (3) Sari). Thus, if the teacher perceives the inclusion of local environmental matters in English studies insignificant or challenging due to local disputes, the teacher may only focus on global discussions (category *Perspective of teaching contents*). In addition to the perspective of environmentalism education in relation to local environmental issues, teachers mentioned other concerns and challenges in relation to their teaching (category *Concerns and challenges in environmental teaching*). These concerns included, for instance, choosing the approach on how to discuss topics that may cause anxiety among students (e.g., quote (28) Liina). This, according to the teachers, requires empathy from the teacher, and choosing the right perspective.

The majority of the teachers interviewed in this thesis described their knowledge about climate change and environmentalism as either above average or good overall (category *Confidence in teaching outside area of expertise*). Further, seven teachers reflected on their personal lives and sustainability concerning their awareness of environment-related topics (e.g., quote (10) Liina). Additionally, seven teachers cited the issue of environmentalism as essential and something they think about regularly. Although six teachers thought that the inclusion of environment-related topics in the curriculum remains superficial or general themes, all participants thought the inclusion of these topics is essential overall. However, the amount of inclusion of these topics may vary depending on the teacher, as Aarnio-Linnanvuori (2016) states that teachers may add on or complement the curriculum contents based on their knowledge and interest (e.g., quote (20) Sanna). Overall, almost all teachers in this study recognized the importance of the topic, had sufficient knowledge of the topic, and felt confident about teaching it during an English class. Having personal knowledge on the topic of teaching has a significant effect on teacher's confidence, especially when the topic is outside one's area of expertise, as environmentalism is for English teachers. However, Zaid et al. (2020) found that expertise is beneficial but not necessary for quality teaching.

Lack of confidence in teaching about environmentalism in English studies was heavily related to lack of time to learn about the topic, receive further training, or go over the topic in the curriculum (category *Lack of confidence in teaching outside area of expertise*). Mizzi (2013) states that planning and executing lessons on topics outside the teacher's area of expertise may be challenging, as teachers may need to acquire new knowledge and vocabulary. Four teachers in this study indicated a need for more time to get acquainted with new materials and vocabulary (category *Input needed for support*). Further, seven teachers mentioned that they are not too aware of the curriculum reform and its contents yet, implying that they may have more knowledge later. These findings are similar to those in Haapaniemi et al.'s (2020) study, as the need for more planning time for different modules was noted. This was studied in the context of Finnish teachers, and although Finnish teachers viewed autonomy as a benefit, the weight of responsibility on an individual teacher was deemed challenging (Haapaniemi et al., 2020). In the context of this study, if teachers do not have sufficient knowledge on the reform or its contents, this responsibility may be demanding for some teachers (category *Individual responsibility*). Thus, having to teach about a topic outside one's area of expertise may feel discouraging. Eight teachers, however, mentioned the support of coworkers and collegial cooperation concerning teaching about environment-related topics within English studies.

An aspect that may affect teacher's confidence to teach about a topic outside their area of expertise is the amount of input given or offered to them. When a teacher receives material, training, methods, and other input, they would most likely feel prepared to teach about the topic at hand. Teachers in this study were asked about the input they would like or need to have to feel more prepared to teach about environmentalism and related topics in English studies. Seven teachers mentioned the number of available materials online or training that they could participate in (category *Materials available*, e.g., quote (24) Aleks). However, when discussing the input they would like to have, seven teachers mentioned receiving useful materials, further training, and support from colleagues (category *Input needed for support*, e.g. quote (27) Sanna). Although four teachers said to have received such input before, many teachers stated that, for instance, materials are available, but distinguishing quality material for one's specific class can be challenging (e.g., quote (23) Sari). Alternatively, training may be available, but due to time constraints, for instance, they are not able to participate.

Further, concerning input and materials, having a personal interest in the subject may affect one's consideration of preparedness or confidence. Teachers interested in environmentalism and related topics may study the subject on their own out of personal interest (category *Confidence in teaching outside area of expertise*). Thus, they may be more likely to come across new materials and methods. In contrast, teachers who do not have a personal interest in environmentalism may not find suitable materials as easily. Further, they may not feel the need to look for additional input (category *Individual responsibility*). Only a few teachers mentioned a lack of materials, and the same teachers did not imply noticeable personal interest in the topic. Further, these teachers cited that they are more likely to follow along with the textbook materials instead of looking for additional resources (e.g., quote (14) Katri). Thus, the amount of personal interest may have a different role in the amount and quality of materials and other input provided or used in the classroom, resulting in noticeably different teaching and learning methodologies and outcomes.

Additionally, when discussing the number of resources and materials available to teachers, one may discuss the source of input. Based on interviews with upper secondary school teachers, individual teachers are responsible for finding external sources and materials (category *Individual responsibility*). This approach was criticized by four teachers, as the role of teachers' interest is evident. However, some teachers did not question this responsibility (e.g., quote (21) Milja). The latter group, responses in category *Materials available*, implied that they do not question the weight of this responsibility, as they seem to think that 'that is just how it is.' Concerns about responsibility to find materials could be linked to teacher autonomy,

as the Finnish national curriculum allows room for interpretation within English courses that deal with environmentalism (Erss et al., 2016). Most teachers have materials through the textbooks' publishers, and one teacher in the interviews of this study specifically said that they rely on those materials. If teachers do not have personal interest in the topic of study, they may feel less motivated or obligated to look for external resources and materials for class. This may result in some students going over sustainability in one course based on the published teaching materials, and some students having guest speakers, digital materials, group works, lectures, projects, and other materials to learn about climate change and related topics.

Aarnio-Linnanvuori (2016) highlights the advantages of teachers' having a profound sense of understanding regarding environmental matters. However, all teachers should not be expected to study minors in environmental education or biology. Suppose the responsibility is left on the teacher. In that case, the pressure of enhancing education lies in teachers' personal interest towards the topic (Aarnio-Linnanvuori, 2016) or their professional sense of responsibility, which expects teachers to be accountable in their acknowledgment of moral responsibility (Seghedin, 2014). As Lipsky (1989) discussed, teachers' personal agenda has the ultimate power in education. Thus, it should not be the responsibility of the individual teacher to be interested in everything themselves. Instead, support should be offered in the form of training and external materials. Teachers should be encouraged to familiarize themselves with the topic of environmentalism, at least through the lens of their subject, as approaching the topic through their expertise may support the command of the topic (Cooper et al., 2021; Aarnio-Linnanvuori, 2016) as a lack of confidence in the context of teaching outside one's area of expertise may affect the quality of the education (Mizzi, 2013). Thus, by realizing teachers' autonomy and role of personal interest, the inclusion of environment-related topics in English studies could be supported and improved.

6 Conclusion

This thesis had a twofold aim: first, to see how environmentalism has changed in the Finnish national curricula for general upper secondary school in the last decades. The second aim was to see how teachers perceive their preparedness in implementing the curriculum and its contents from the point of view of autonomy and Michael Lipsky's concept of *street-level bureaucracy*. Based on these aims, three research questions were formed:

1. How has the consideration of environmentalism in English studies developed in the Finnish national curriculum for general upper secondary school?
2. How do teachers' autonomy and preparedness affect the implementation of curricular contents?
3. What kind of input do English teachers need to feel more prepared to teach about environmentalism in English studies?

The first research question was answered by examining the curriculum, as curricular developments were identified. This process also showed what teachers are expected to teach. By talking to teachers directly in one-on-one interviews, their beliefs on their preparedness, abilities, and autonomy were established. Thus, the second and third research questions could be answered.

Concerning the first research question, the development of the national curriculum for general upper secondary education in terms of its environmentalism-related content was examined. Although the 1985 curriculum recognized natural resources, nature conservation, and population issues, the concepts of sustainability and global warming did not have a prominent role in the curriculum (LOPS, 1985). However, perhaps due to the 1992 *Earth Summit* in Rio de Janeiro, sustainability was mentioned in the 1994 curriculum in general themes of the curriculum in addition to an environment-related optional course in English studies (LOPS, 1994).

At the turn of the millennium, however, the 2003 national curriculum emphasized the role of international cooperation and active citizenship in realizing environmental issues and challenges (LOPS, 2003). Sustainability was realized through its impact on different areas of life, such as consumption or diet, and students were encouraged to realize their role in living sustainably. However, the 2003 curriculum did not mention climate change as the 2015 curriculum did (LOPS, 2003; LOPS, 2015). The 2015 national curriculum mentioned sustainable way of living and global responsibility concerning students' awareness of their

actions' impact on the environment, as the curriculum suggested the formation of sustainability programs within schools. Further, the 2015 curriculum recognized global responsibility in relation to climate change, as the curriculum mentions inequalities concerning environmental matters (LOPS, 2015).

In 2015, the Paris Agreement was a substantial development in international cooperation to slow down global warming through the requirement to reduce nations' respective emissions (source). This agreement may have impacted the development of the 2019 national curriculum as well, as the curriculum mentions environmental consciousness as one of its transversal competencies (LOPS, 2019). Further, English language studies cite understanding the global environmental crisis in more languages as essential to understanding science-based information on the topic. Additionally, the role of international organizations and treaties is emphasized, as all students are encouraged to reflect on their own actions' impact on the environment (LOPS, 2019).

Finnish national curricula have an undeniable role in society, as society's values are often reflected in the national curricula. Thus, acknowledging environmental issues' importance in the curriculum indicates that Finland as a nation sees these issues as essential to discuss with youth. Since 1985, the Finnish national curriculum has recognized natural resources, and perhaps more importantly, their limitations. Since then, the curriculum has developed its environmentalism-related contents through introduction of sustainability topics and inclusion of transversal competencies. Students are encouraged to discuss environment-related topics in English studies as well, highlighting the importance of international understanding and cooperation to slow down global warming and live sustainably. However, although the curriculum lists various things to consider in upper secondary schools around Finland, teachers have freedom in implementing these goals and objectives.

In determination of the second research question, teachers' autonomy in the interpretation of the national curriculum was examined through Michael Lipsky's concept of street-level bureaucracy, where teachers are considered to have a great deal of power and responsibility in society. Especially when teachers have liberties in interpreting the national curriculum, the extent and inclusion of topics such as environmentalism may depend on teachers' personal interest in the topic. In context of Finnish curricula, as the curriculum provides the framework of modules, teachers have freedom in choosing the different perspectives and emphasis of specific courses. However, as teachers have autonomy in interpreting the curriculum, their personal interests, motivation, accountability, and confidence to teach topics outside their area of expertise may affect their teaching and thus their students.

To discuss this autonomy further, ten Finnish teachers of English were interviewed to see how they view the national curriculum and its environment-related contents within English studies. Based on these interviews, most teachers perceived the national curriculum as a framework that teachers interpret and apply in different courses. This, in turn, established a sense of autonomy in its use. The national curriculum offers teachers general themes and topics to cover in different courses or modules. The 2019 curriculum, for instance, states that English studies should consider local topics (LOPS, 2019). Correspondingly, when teachers were asked about environment-related topics within teachers' local areas, nine teachers mentioned local topics that could be discussed in class. However, four teachers mentioned either a lack of time to familiarize themselves with local environmental matters, preference of global topics, or concern of consensus regarding controversial matters in the local environment. Teachers mentioned that they would like to avoid arguments over local matters and would thus prefer global perspectives. Further, global topics were seen as beneficial for cultural and linguistic knowledge development. Thus, as the national curriculum provides a general guideline for discussing local topics in English studies, teachers may use their autonomy and choose to overlook or disregard some topics.

Further, in this study, the role of autonomy and individual responsibility were seen as integrally connected to curriculum implementation. Autonomy provides teachers with freedom within the curriculum's interpretation but creates a workload for the individual teacher. Thus, in the end, individual teachers' personal interest in the topic of environmentalism may have a notable impact. If teachers perceive environment-related topics as being interesting and essential to discuss, they may feel more motivated to look for external sources or training to enhance their teaching. On the other hand, if teachers do not care for the topic, they may feel more inclined to discuss the topic only concerning mandatory chapters and publishers' materials. This variation in interpretation of the curriculum may result in different learning outcomes for students, depending on the teacher's perception of the topic.

Eight teachers mentioned their personal interest in the topic of environmentalism. This was conveyed as six teachers described choices they make in their personal lives, as they deemed it necessary to recycle or drive an electric car for environmental reasons. Moreover, six English teachers in this study described their knowledge of environment-related topics as 'above-average,' although the topic is outside their specific area of expertise. This type of awareness and knowledge may reflect on teachers' confidence to teach about these topics, as having knowledge and experience on the topic of discussion may make teaching more enjoyable.

However, teachers who are not confident or do not feel prepared to teach about environmentalism should be recognized, as the provided freedom and autonomy may not be beneficial to all teachers. This study's interviews pointed out that teachers had difficulties finding good sources and materials to use in class, which brings out the need for more input. The third research question of this study examined teachers' perceptions on input they would like to have to feel more prepared to teach about environmentalism in English studies. As determined in the curriculum study for the first research question, the curriculum may provide a framework in the form of transversal competencies, or mere suggestions to provide local perspectives in the module. The superficiality of the national curriculum, especially regarding input, was mentioned by six teachers, as other than selected textbook materials, the curriculum does not give resources for the review of environmental matters.

Referring to the autonomy provided to Finnish teachers, teachers deemed it their responsibility to look for external resources or input. This input could be, for instance, support, materials, resources, or training. In the empirical study, teachers mentioned 'an abundance of material,' but distinguishing quality works were deemed challenging. Thus, when teachers were asked about the kind of input they would prefer to feel more prepared to teach about environmentalism, teachers mentioned more training opportunities offered by the *National Board of Education* or organizations, for instance, in addition to external resources and collegial support. Four teachers mentioned that training has been available before but finding suitable resources has been the responsibility of the teacher. Moreover, the ongoing pandemic has challenged the availability or time to participate in further training opportunities. With regard to input, teachers had other concerns as well.

Three teachers considered the perspective of environmentalism education challenging. As young people are often anxious about environment-related topics, two teachers emphasized the need for empathy in environmentalism education. One teacher mentioned that environment-related topics may be ordinary for some teachers, but to young people, they may cause distress. Thus, although teachers did not want to only discuss these topics from an optimistic point of view, the importance of perspective and emphasis were noted. Further, four teachers were concerned about a lack of time to get acquainted with new materials, vocabulary, and modules, as environmentalism is outside English teachers' area of expertise. Especially independent work with an unfamiliar topic can be demanding.

However, eight teachers recognized the role of collegial support. Teachers in this study emphasized collegial support in organizing joint courses with, for instance, biology or

geography teachers or collaboration with other English teachers to find suitable materials and sources for environmentalism education. However, as mentioned by a teacher in this interview, this type of collaborative modules or courses requires active participation from teachers, although not all teachers will have the energy and time for this amount of work. Teachers who were not confident in teaching about environmental matters often mentioned a lack of time as a challenge in teaching about topics outside respective areas of expertise. Thus, the relation between teachers' preparedness and confidence to teach about environmentalism and teachers' experiences in needing more input is notable.

Only a few teachers thought that their level of knowledge did not suffice or that they would not be able to teach about the topic without further training. However, within this discussion, recognizing the connection between interviewees' willingness to participate in this study and their knowledge regarding the topic of study is essential. In the invitation to participate in this study, the topic of this thesis was mentioned. Thus, although over thirty teachers of English in Finland were contacted, only ten teachers agreed to participate. It may be that some teachers chose not to participate due to lack of confidence or perceived knowledge to talk about the topic of environmentalism. Participation in this study was voluntary, and there was no monetary compensation. Thus, the incentive to participate relied on participants' personal motivation or willingness.

Although the results of this study may not be generalized to describe all English teachers' perceptions, this study may be used to generate a more generalizable result in the form of further research. This study could not achieve in-depth descriptions of the challenges teachers face in interpreting the curriculum or teaching about topics outside teachers' areas of expertise. However, among the ten teachers interviewed in this study, seven teachers mentioned that they would like further training. This means that there is an urgent need to examine how widespread the need for further training is. That is, most teachers in this study would like further training or more input. Thus, in consideration of all teachers in Finland, there must be a wider need for support. This need for support also raises the question of curriculum implementation. If teachers do not feel comfortable or prepared to teach about environmentalism in English studies, the curriculum will not be realized to its full potential in Finnish schools. Thus, teachers' preparedness to teach outside their area of expertise by following the framework offered by the national curriculum should be studied further.

Additionally, the concept of Michael Lipsky's street-level bureaucracy could be studied to a further extent concerning Finnish teacher autonomy and responsibility. Although autonomy and professional freedom among Finnish teachers have been studied to an extent, teachers'

responsibility and accountability could be examined further. If teachers do not have personal interest in a certain topic, and the topic happens to be outside their specific area of expertise, they may not feel inclined to teach about the topic to a further extent. Thus, teacher autonomy concerning power and freedom could be studied further in the Finnish context. Teachers who chose to participate in this study do not give a generalizable picture of Finnish teachers' preparedness to teach outside their area of expertise, as over thirty teachers were asked to participate, and only ten participated. It could be that only teachers who are interested in the topic of environmentalism joined this study. Thus, it is necessary to recognize how the results on teachers' preparedness cannot be generalized to represent all Finnish teachers' preparedness.

This study achieved a summary of the environmentalism-related development of the Finnish national curriculum for general upper secondary schools, especially within English studies. This review found that the national curriculum has considered environmentalism important since 1985, although along with different reforms, the specific contents of courses and modules have developed into transversal competencies and voluntary environment-related courses. This also provided a glimpse into the requirements of Finnish teachers. Teachers' perceptions of their autonomy and preparedness to teach about environmentalism, although the topic is outside their area of expertise, were described in interviews with ten Finnish teachers of English.

This study found that Finnish teachers have autonomy in curriculum implementation, which may cause variation in the learning outcomes of courses and modules. Various factors, such as teachers' content knowledge and confidence, collegial support, curriculum familiarity, and input perceptions affect the implementation of curricular contents. However, many teachers would like to have further training opportunities, more materials, and support from colleagues to feel more prepared to teach about environmentalism. Generally, teachers acknowledged the importance of environmental matters and thought that environmentalism in English studies was necessary. Further, teachers seemed to appreciate the autonomy they have within the interpretation of the national curricula, although the autonomy may affect teachers' workload. In conclusion, Finnish teachers of English perceive the national curricula's inclusion of environmentalism important, and although the topic may require additional effort from teachers, they feel prepared to teach about environmentalism and thus implement the Finnish national curriculum.

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